

Beyond Meaning

EDITED BY

Elly Ifantidou
Louis de Saussure
Tim Wharton



John Benjamins Publishing Company

Copyright 2021, John Benjamins Publishing Company. All rights reserved. May not be reproduced in any form without permission from the publisher, except fair uses permitted under U.S. or applicable copyright law.

Beyond Meaning

Pragmatics & Beyond New Series (P&BNS)

ISSN 0922-842X

Pragmatics & Beyond New Series is a continuation of *Pragmatics & Beyond* and its Companion Series. The New Series offers a selection of high quality work covering the full richness of Pragmatics as an interdisciplinary field, within language sciences.

For an overview of all books published in this series, please see benjamins.com/catalog/pbns

Editor

Anita Fetzer
University of Augsburg

Associate Editor

Andreas H. Jucker
University of Zurich

Founding Editors

Jacob L. Mey
University of Southern
Denmark

Herman Parret
Belgian National Science
Foundation, Universities of
Louvain and Antwerp

Jef Verschueren
Belgian National Science
Foundation,
University of Antwerp

Editorial Board

Robyn Carston
University College London

Thorstein Fretheim
University of Trondheim

John C. Heritage
University of California at Los
Angeles

Susan C. Herring
Indiana University

Masako K. Hiraga
St. Paul's (Rikkyo) University

Sachiko Ide
Japan Women's University

Kuniyoshi Kataoka
Aichi University

Miriam A. Locher
Universität Basel

Sophia S.A. Marmaridou
University of Athens

Srikant Sarangi
Aalborg University

Marina Sbisà
University of Trieste

Sandra A. Thompson
University of California at
Santa Barbara

Teun A. van Dijk
Universitat Pompeu Fabra,
Barcelona

Chaoqun Xie
Zhejiang International Studies
University

Yunxia Zhu
The University of Queensland

Volume 324

Beyond Meaning

Edited by Elly Ifantidou, Louis de Saussure and Tim Wharton

Beyond Meaning

Edited by

Elly Ifantidou

National and Kapodistrian University of Athens

Louis de Saussure

University of Neuchatel

Tim Wharton

University of Brighton

John Benjamins Publishing Company

Amsterdam / Philadelphia



The paper used in this publication meets the minimum requirements of the American National Standard for Information Sciences – Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984.

DOI 10.1075/pbns.324

**Cataloging-in-Publication Data available from Library of Congress:
LCCN 2021020968 (PRINT) / 2021020969 (E-BOOK)**

ISBN 978 90 272 0926 9 (HB)

ISBN 978 90 272 5959 2 (E-BOOK)

© 2021 – John Benjamins B.V.

No part of this book may be reproduced in any form, by print, photoprint, microfilm, or any other means, without written permission from the publisher.

John Benjamins Publishing Company · <https://benjamins.com>

Table of contents

Introduction	1
Section 1. Beyond meaning: Ineffability and utterance interpretation	
Beyond meaning _{NN} and ostension: Pragmatic inference in the wild <i>Stavros Assimakopoulos</i>	11
Contrastive stress in English: Meaning, expectations and ostension <i>Kate Scott</i>	29
Presupposition effects: Beyond and within speaker's meaning <i>Misha-Laura Müller</i>	43
Metaphor comprehension: Meaning and beyond <i>Elly Ifantidou</i>	61
Section 2. Beyond meaning: Ineffability and the written word	
Conceptual mappings and contextual assumptions: The case of poetic metaphor <i>Anna Piata</i>	79
An experiential view on what makes literature relevant <i>Louis de Saussure</i>	99
Humorous means, serious messages: A relevance-theoretic perspective on telling jokes to communicate propositional meaning <i>Agnieszka Piskorska</i>	119
Section 3. Furthur beyond: Ineffability by meaning/ showing	
Experiences of ineffable significance <i>Nigel Fabb</i>	135
Hushed tones: Ceremonial treatment as a perspective shifter <i>Kate McCallum and Scott Mitchell</i>	151

Onomatopoeia, impressions and text on screen	161
<i>Ryoko Sasamoto</i>	
Before meaning: Creature construction, sea-sponges, lizards and Humean projection	177
<i>Louis Cornell and Tim Wharton</i>	
Index	199

Introduction

The territory

The interpretation of language involves a massive amount of inferential reconstruction. In contemporary accounts of pragmatics, it is generally presumed that since inference operates over propositions, what is reconstructed has to be propositional: in Gricean terminology, a speaker ‘means_{NN} that p’. In acts of ordinary communication this may be true some of the time, but it is also certainly not *always* true and perhaps such cases are more common than not. Sometimes, what a communicator intends to convey is so nebulous that it cannot be paraphrased in propositional, or conceptual, terms at all. Often, all a hearer is able to infer from a communicative act is something that has been very weakly implicated: a sensation, a feeling, an emotion or some other vaguely realised aesthetic experience. In such cases there is no meaning_{NN} *per se*. What is conveyed is, to use a term in currency at the moment, ‘descriptively ineffable’.

Linguists have tended to ignore such cases. Despite the fact that they are often crucial to our understanding of many aspects of language use, these ineffable, vague aspects of communication have been largely ignored. This strategy has had a number of negative consequences: at best it has left a range of important questions unanswered; at worst it has left such questions unasked. How might we account for the communication of non-propositional phenomena such as moods, emotions and impressions? More broadly, what type of cognitive response do these phenomena trigger, if it is not conceptual or propositional? How might the descriptive ineffability of expressives, interjections, perspectival interpretations of tenses, intensifiers, figures etc. be accommodated within a more general theory of language use? Do pauses, creative metaphors, unknown words in second languages and other ‘pointers’ to ‘conceptual regions’ communicate concepts? And what of those working on the aesthetics of art, music and literature?

Arguably, such theorists have fallen into the same trap as linguists. They have traditionally tended to treat literary texts, for example, as objects designed to be interpreted through the achievement of effects at a conceptual level. But these objects surely involve different kinds of effect: perceptual, affective, aesthetic and perhaps

others... Moreover, the answers will have implications for how we understand other types of human activities which involve the instantiation of effects that go beyond meaning. Faced with an artwork, 'What does it mean?' might simply be the wrong question: literature and art are about more than mere conceptualizing. It might even be the wrong question to ask of ordinary conversation.

Why have researchers been so bad at attending to these vaguer aspects of communication? One potential reason is the strong Rationalist position in Socratic/Platonic philosophy that truth was achieved through the mind, not the senses: that emotion interfered with reason and the mind was actually *limited* by emotions; Plato believed they were not to be trusted.

But as Aristotle once said, 'Educating the mind without educating the heart is no education at all.' Athens, then, seemed the perfect place to address such questions and in September 2017 the *Beyond Meaning* research network held its first international conference in the historic *Propylaea* Building of the National and Kapodistrian University of Athens, the oldest university in Greece. The goal of the conference was to encourage exploration of the territory beyond meaning. We brought together scholars from linguistics, cognitive psychology, philosophy/aesthetics and the study of literature and art. Our avowed aim: to broaden the current machinery and scope of pragmatics and cognitive science and perhaps lead to a reconsideration of the notion of meaning itself.

Beyond speaker meaning: Intentions and theory

The conference had a focus on cognitive science and the organizers particularly welcomed submissions from scholars in linguistics, pragmatics, philosophy, literary studies and cognitive psychology. But while submissions were solicited from researchers working in just about any relevant field of study (and indeed many such researchers were accepted for the event) in many ways, the theoretical work in one paper, *Beyond Speaker's Meaning* (Sperber and Wilson 2015), influenced not only the formation of our research network in the first place, but the conference themes themselves.

A problem with analysing communicative acts that are descriptively ineffable (and one of the reasons they may have been overlooked so) is that it is difficult to accommodate non-propositional thought satisfactorily within the kind of processes of inference that theories of inferential pragmatics typically employ – whether they be Gricean, neo-Gricean or post-Gricean. As the founders of relevance theory, Dan Sperber and Deirdre Wilson put it: 'No one has any clear idea how inference might operate over non-propositional objects: say, over images, impressions or

emotions...’ (1995: 57). We share this doubt. Indeed, it seems somehow implausible that inference can ‘operate over’ emotions at all.¹

Since a relevance theoretic framework was adopted by a number of presenters at the conference, and since it features in several of the chapters that follow in this volume, it seems appropriate to offer a brief overview of some of the ways in which the 2015 paper inspired us. For it offers two possible solutions to the conundrum of what, if anything, is meant_{NN} (or at least conveyed) in the kind of cases on which the conference aimed to focus. The first of these is that, in contrast to Gricean and neo-Gricean accounts, relevance theory proposes that the informative intention is not always reducible to an intention to communicate a single proposition and propositional attitude. Indeed, Sperber and Wilson have mentioned (and we take this to be suggestive) that sometimes whatever the intended import of a communicative act or ostensive stimulus is it ‘cannot be rendered as a proposition at all’ (2015: 125). So instead the relevance theoretic informative intention is an intention ‘to make manifest or more manifest to the audience a set of assumptions I’ (Sperber and Wilson 1986/1995: 58). This set of assumptions may be manifest to different degrees. The more salient a manifest assumption, the more strongly it is manifest. The idea in relevance theory is that the vaguer aspects of communication typically sometimes involve just a negligible increase in the manifestness of a wide range of weakly manifest assumptions. This results in an increased similarity between the shared knowledge of speaker and hearer, and hence the common ground (or, in relevance theoretic terms, mutual manifestness) they both experience. The second is that the line Grice (1957) famously drew between showing and meaning_{NN} has had substantial effects on the development of pragmatics. Many people studying pragmatics still focus entirely on the notion of meaning_{NN} and abstract away from cases of showing. Indeed, in her plenary talk at the conference Deirdre Wilson quoted Steven Levinson, who argues that ‘Meaning_{NN} [...] draws an outer boundary on the communicational effects that a theory of communication is responsible for’ (2000: 13). In sharp contrast, Sperber and Wilson (1986/1995) argue the line *should not be drawn at all*. According to relevance theory, Gricean showing and meaning_{NN} are both instances of overt intentional communication, and there is a continuum of cases in between rather than there being a cut-off between the two notions. In the 2015 paper to which we refer, Sperber and Wilson (2015: 123) augment the original figure of the continuum-as-a-straight-line with a separate, orthogonal dimension, which allows them to accommodate the fact that the import of what is shown or meant_{NN} may be more or less determinate. This has the consequence of turning the straight-line into a square (see Figure 1).

1. We don’t doubt that inference can operate over *representations* of emotional states, but that is emphatically not the same as saying they operate over the emotions themselves.

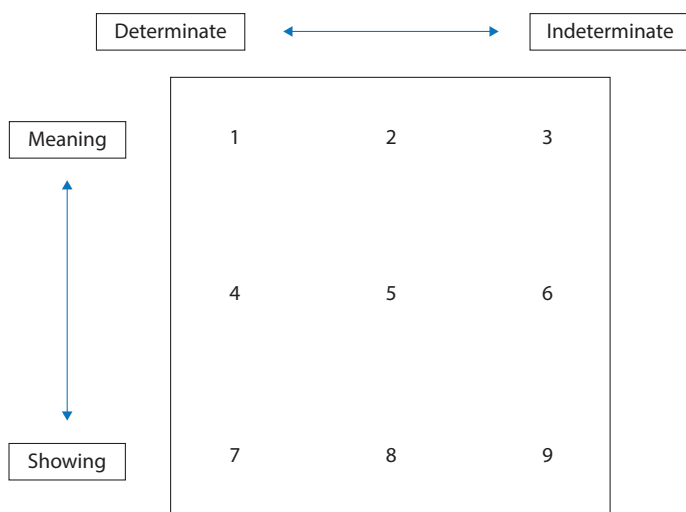


Figure 1.

The vertical axis charts the directness of the evidence presented for whatever information is being conveyed. Evidence is shown when the ostensive behaviour that points it out is direct. My walking companion asks our destination and I point straight down *Ermou* towards the church at the end of the street. When I respond with a coded utterance, the evidence I provide is indirect. ‘We’re going to the Church of *Panagia Kapnikarea*’ is a paradigm example of meaning_{NN}.

The horizontal axis between determinate and indeterminate import charts the nature of the information that is being pointed out ostensively, irrespective of whether it has been shown or meant_{NN}. Whether I point to the church, or respond in a shared code – in this case English – what is being shown or meant_{NN} could not be more determinate: it is a particular building in a particular place in a particular city in Greece (so in either the region of the 7 or 1 in Figure 1). Poetic metaphors, by contrast, are cases of indeterminate meaning (in the vicinity of 3 in Figure 1). To use an example from a chapter of this book (Piata, this volume), what does the italicised line in the following verse from ‘Inferno’ by Alexandros Isaris mean?

(2) Tick tock tick tock
 signaling one two midnight
 when the night is torn apart
 and *time goes by trampling*...
 Tick tock tick tock
 time moves on by trampling

It is descriptively ineffable, too nebulous to be paraphrased at all.

Some cases of showing are indeterminate too. In the course of our walk down *Ermou* towards *Monastiraki* and the church I stop. I ostensibly look up at the summer sky and gaze around me, breathing deeply, absorbing the delicious sights, sounds and smells of beautiful Athens through every pore. In this case, the view, the sounds and smells perceivable in my companion's physical environment will interact with his inferential abilities and memories to alter whatever it is the environment we share. This will make it possible for him to have other thoughts, further feelings of his own, perhaps bringing back memories we both share. I did not *mean* any one thing. What I intended to convey was merely an impression (near 9 in Figure 1). The framework presented in relevance theory, then, has opened up new avenues. The change in the informative intention means that what is communicated might be vague and indeterminate. The bi-dimensional continua free us from the limitations imposed by the notion of Gricean and neo-Gricean determinate meaning.

Notice, however, that an account depending on the communication of an array of weak implicatures is still to an interesting extent an account that depends on propositions. Implicatures, no matter how weak, are still propositions. If something really is too nebulous to be paraphrased in propositional terms, perhaps there are alternatives to attempting to paraphrase it as an array of yet further propositions. Some alternatives are sketched in the chapters that follow and insights into the questions we raise in the first part of this introduction are offered by researchers both from relevance theory and different, competing frameworks.

The chapters

The chapters are arranged in three sections, broadly representing three themes. But we also aim to encourage readers to identify the links across the different themes themselves.

Section One is entitled *Beyond meaning: ineffability and utterance interpretation* and is devoted to contributions, primarily from linguists, who are concerned with the communication and interpretation of non-propositional effects, and how these effects might be accommodated within theories of utterance interpretation. In his paper 'Beyond meaning_{NN} and ostension: Pragmatic inference in the wild' Assimakopoulos explores the idea that while the human ability to engage in pragmatic inference may have evolved in response to natural selection pressures for a more efficient attribution of communicative intentions, its underlying cognitive mechanisms may no longer be exclusively tied to acts that are ostensive *per se*. Assimakopoulos argues that, once they have been attended to, we make use of these

very same cognitive mechanisms to interpret non-ostensive acts. To account for this, he proposes that a distinction between comprehension and interpretation – once very much part of relevance theory – needs to be reinstated.

The second paper is entitled ‘Contrastive stress in English: Meaning, expectations and ostension’. In this paper, Scott asks whether some of those communicative behaviours that have been analysed using the relevance-theoretic notion of procedural meaning might actually encode *nothing at all*. Central to her argument is the case of English contrastive stress, which she claims the communicative effects may fall out simply from considerations of relevance. This raises questions concerning not only the nature of procedural meaning, but also the inner workings of the relevance theoretic comprehension procedure (itself, note, a procedure). In the third paper in this section, ‘Presupposition effects: Beyond and within speaker’s meaning’ Müller investigates that old favourite of semanticists – presuppositions – in a novel and original way. She situates both semantic and discursive sense presuppositions within the two orthogonal axes in Figure 1 above, but goes on to argue that presuppositional effects involve a third axis of ‘ostensiveness’ which account not only for the fact that certain presuppositions are not properly in focus, but also enhances our understanding of some of the well-known cognitive biases that are related to presuppositions.

In the final paper of Section One, ‘Metaphor comprehension: meaning and beyond’, Ifantidou examines the role of metaphor as a facilitator of pragmatic interpretation, but in second language acquisition. She suggests that metaphors facilitate comprehension because they are vehicles for emotions such as affection or dislike, (especially in those texts which resist accurate reading by second language learners). In these cases, the ‘beyond meaning’ effect of metaphors resides in the fact that they evoke images or emotional responses, which in turn connect to interpreters’ perceptions, memories, previous experiences, imagining, and beliefs: metaphorical processing in second language acquisition crucially involves a blend of language information with perceptual experiences.

Section Two is entitled *Beyond meaning: ineffability and the written word* and features contributions which, instead of focussing on issues traditionally addressed by linguists, focusses on literature, and the inherent ineffability of literary effects. In the first chapter of this section, ‘Conceptual mappings and contextual assumptions: The case of poetic metaphor’, Piata explores the uniqueness of metaphorical meaning from two different theoretical approaches: Cognitive Linguistics and relevance theory. Piata maintains that aspects of each account are actually complementary, when they are usually seen as being in opposition and uses as evidence metaphorical expressions of time found in poems by Emily Dickinson, T. S. Eliot, Nicolas Cavafy, Odysseus and others. In the second chapter in Section Two – ‘An experiential view on what makes literature relevant’ – de Saussure argues that literature

communicates in a way that is fundamentally different to other acts of meaning. What drives the process of reading a literary work is that the core effects are not informational in the traditional sense of relevance theory but, rather, 'experiential': they trigger reminiscences of past experiences or imaginations which, in turn, lead to new types of experiences and imaginations.

Piskorska follows these arguments up with a pragmatic analysis of mechanisms involved in the comprehension of canned jokes and, in particular, how they are worked into a stretch of non-humorous talk. The account focusses on two aspects of the comprehension process: the distinction between, on the one hand, the descriptive and interpretive (or metarepresentational) dimensions of language use and, on the other, the implicatures of the utterance in question, which carry the most significant part of the intended meaning.

With a nod to Ken Kesey's 'Merry Pranksters' Section Three is entitled *Furthur Beyond: Ineffability by meaning / showing*. Contributions in this section address ineffability and creative communication more broadly construed and include discussion of the ineffable significance of music, art, text and evolution. In his paper 'Experiences of ineffable significance', Fabb discusses human experiences which involve a sudden feeling of coming to know something highly significant but which cannot, for some reason, be described in words. Such experiences may be associated with emotional arousal, such as chills or tears. The chapter proposes a unified account of how such experiences might arise, asks how they are judged to be so replete with full of significance and importance, and discusses why they might be descriptively ineffable. While they are rare, and the variation between such experiences is context-dependent, Fabb argues that they all arise from a similar source.

In 'Hushed tones: Ceremonial treatment as a perspective shifter', McCallum and Mitchell push the pragmatics envelope even further, arguing that the pragmatic notion of ostension offers a convincing answer to the question of how 'found object' artworks can be experienced as both fascinating and profound, with their own complex and ineffable implications, when seeing the same object that in a different context might easily be experienced in a totally different way. Sasamoto's 'Onomatopoeia, impressions and text on screen' explores the relationship between visual and verbal inputs into communication with a unique analysis of onomatopoeia as telop on Japanese TV. Her analysis shows that that it functions as a bridge between the verbal and non-verbal evidence in multimodal communicative acts, allowing for the interaction between different modes in terms of the distribution of intended imports in the two-dimensional view of meaning.

In the final chapter of the book 'Before meaning: creature construction, seaspoges, lizards and Humean projection' Cornell and Wharton retrace a little-known thought experiment of Paul Grice's entitled 'creature construction'. This experiment attempts to show how complex psychological processes can be shown

to emerge from less complex behaviours. Beginning with simple organisms, Grice examines how the organism's psychological processes work to construct representations of the surrounding environment in such a way that those representations can be utilised for survival. Grice's work demonstrates wonderfully well that more complex cognitive processes can never be completely disentangled from the simpler ones and so there has to be room for those simpler psychological states – non-propositional phenomena such as emotions, sensations and feelings – in an inferential model, no matter how rich in complex metacognition that account is.

The Editors

SECTION 1

Beyond meaning

Ineffability and utterance interpretation

Beyond meaning_{NN} and ostension

Pragmatic inference in the wild¹

Stavros Assimakopoulos

University of Malta

Inferential pragmatics is typically considered to deal exclusively with meaning that has been overtly and intentionally communicated. This paper sets out to investigate whether this established domain of enquiry can be extended to include instances of information transmission that may not be characterised by an underlying communicative intention on the part of a stimulus producer. Adopting a relevance-theoretic perspective, I argue that this can indeed be done and show how it can be quite naturally accommodated in the framework. The upshot of my argumentation in this regard is that pragmatic inference has a central role to play in interpretation even beyond the confines of what has been traditionally viewed as communication proper.

Keywords: inferential pragmatics, relevance theory, ostension, meaning_{NN}, non-intentional communication

1. Overtness and the domain of pragmatics

Inferential pragmatics has been traditionally defined as the study of the ways in which addressees manage to inferentially reconstruct some communicator-intended meaning by going beyond the conventional meaning of the stimulus that the communicator originally used to this end. Under this conception, the systematization

1. First and foremost, I would like to thank Elly Ifantidou, Louis de Saussure and Tim Wharton, for providing the original motivation to think about the territory 'beyond meaning,' as well as for their enthusiasm, patience, and sound editorial advice during the production of this paper. I am also grateful to the audiences of the *1st Beyond Meaning Conference* and the *Relevance by the sea Workshop*, where some of the ideas discussed here were presented, as well as to two anonymous reviewers for their constructive comments and feedback. Last but not least, I would like to especially thank Deirdre Wilson and Nicholas Allott for challenging me to think even harder about the present proposal. Needless to say, all shortcomings in this paper remain my own.

of modern pragmatic theory is usually attributed to Grice's theory of implicature, which offered a principled way of working out how speaker meaning becomes available to the hearer through the foreseeable manipulation of the cooperative principle and its underlying maxims by the speaker. Even so, it is only when one considers Grice's theory of implicature in conjunction with his theory of meaning that one can fully appreciate the scope of the field in its entirety. As Levinson (1983:101) elucidates,

[o]bviously we can, given an utterance, often derive a number of inferences from it; but not all those inferences may have been communicative in Grice's sense, i.e. intended to be recognized as having been intended. These kinds of inferences that are called implicatures are always of this special intended kind, and the theory of implicature sketches one way in which such inferences, of a non-conventional sort, can be conveyed while meeting the criterion of communicated messages sketched in Grice's theory of meaning.

In this picture, the subject-matter of pragmatics is *non-natural meaning* (henceforth *meaning_{NN}*), the definition of which – even in its earliest formulation – underlines the central role that the recognition of a speaker's overt intention to affect her² audience plays when dealing with verbal communication: “A meant_{NN} something by *x*' is (roughly) equivalent to 'A intended the utterance of *x* to produce some effect in an audience by means of the recognition of this intention'” (Grice 1957: 385).

Against this backdrop, Sperber and Wilson's reappraisal of pragmatics from a cognitive-psychological perspective may have put forth an approach that is radically different from the maxim-based one that Grice had originally envisaged and neo-Griceans continue to work on, but is still squarely based on his view that “the goal of pragmatic theory is to explain how the hearer recognizes the overtly intended interpretation of an utterance” (Wilson 1993: 365). Of course, as regards the actual subject-matter of pragmatics, relevance theorists significantly expanded on Grice's original account by suggesting that there are further categories of *communicator-intended import* that pragmatics is ultimately tasked with accounting for (see Wharton 2008; Sperber and Wilson 2015). For one, Grice (1957:382) distinguished “between ‘deliberately and openly letting someone know’ and ‘telling’”, which eventually led him (Grice 1969) to fine-tune his aforementioned definition of *meaning_{NN}* to only comprise the latter. Conversely, Sperber and Wilson (2015:119) recognise that “there is a continuum of cases between ‘meaning that’ (typically achieved by the use of language) and ‘displaying evidence that’ (in other words, showing)” and have thus allowed their approach to account for both meaning and

2. For ease of exposition, I will follow the common practice of referring to the communicator in the feminine and the addressee in the masculine throughout this paper.

showing. Then, despite eventually conceding that the ‘effects’ which the recognition of the speaker’s overt intention to communicate something produces in the audience might be best described as “conceptions or complexes which involve conceptions” (Grice 1989: 350), Grice customarily treated meanings_{NN} as messages that carry fully determinate propositional content. Relevance theory, on the other hand, acknowledges that there are also “cases of very weak communication, where any conceivable paraphrase of the speaker’s meaning would be quite defective” (Sperber and Wilson 2015: 146), as it may comprise an array of indeterminate explicatures and implicatures or even “a further range of effects,” such as mental imagery and affective states, “that seem better described in non-propositional terms” (Wilson and Carston 2019: 38). It is in this vein that relevance theorists have replaced the Gricean notion of meaning_{NN} with the notion of an ostensive act’s intended import and readdressed the domain of pragmatics as comprising *ostensive communication*, whereby ostension is defined as the engagement in overt and intentional behaviour that seeks to not only “attract the audience’s attention,” but also, and most importantly, “focus it on the communicator’s intentions” (Sperber and Wilson 1995: 153).

Still, what transpires, even at this superficial level of detail, is that, despite their relative differences, the two paradigms have at least one point of convergence: in relevance theory too, pragmatic processing underlies the construction of a hypothesis about the communicator’s informative intention (i.e. her intended meaning), but this can again only take place after her communicative intention, that is, her intention to communicate something in the first place, is initially recognized. In this regard, relevance theorists follow Grice directly when it comes to the overt-ness with which some intention needs to be manifested in order for it to be considered communicative, and thus within the scope of pragmatic theory. Indeed, as Wharton (2008:139, emphasis in original) observes, “[r]elevance theory has a carefully delimited domain; it is not a ‘theory of everything;’ it is not even a theory of communication *per se*, and focuses on a sub-type of human communicative behavior: *behavior by which a communicator provides evidence that they intend to communicate something*”.

It is at this juncture that several critics of (neo-)Gricean and relevance-theoretic pragmatics alike have repeatedly raised a point of contention. As Haugh (2008:100) points out, “in much of the theorizing of pragmatics in Socio-cultural-Interactional pragmatics, [...]ntention is often labelled as ‘problematic’ and then only mentioned again in passing, if at all”. Verschueren (1999: 47–48, emphasis in original), for example, holds Grice responsible for making “meaning [...] fully dependent on *intentions*,” while arguing that even though “it would be unwarranted to downplay the role which intentions [...] play [in the delineation of pragmatics, ...] it would be equally unwise to claim that every type of communicated meaning is dependent on a definable individual intention on the part of the utterer”. Similarly,

targeting relevance theory directly this time, Mey and Talbot (1988: 746) advocate that “[c]ommunication cannot be restricted to what people intend to communicate. People communicate more than they intend. S[perber and] W[ilson]’s model crucially rests on the exclusion of precisely this”. Addressing such comments, Sperber and Wilson (1997) note:

The issue is not, of course, whether non-ostensive forms of information-transmission exist, but whether they should be treated as communication. In *Relevance*, we argue that, in general, unintentionally transmitted information is subject merely to general cognitive rather than specifically communicative constraints.

(Sperber and Wilson 1997: 150)

To be fair, the relevant criticism targets primarily the relative lack of interest that theories of inferential pragmatics have shown to social aspects of language use, which are therein deemed non-communicative, since they do not comprise “information intentionally ‘given,’” but rather “information unintentionally ‘given off’” (ibid). But even when explicitly referring to other non-ostensive forms of information transmission, Wilson and Sperber (1993) correspondingly treat them as non-communicative, suggesting that

what distinguishes ostensive communication from other forms of intentional or unintentional information transmission is that the hearer has special help in recognising the speaker’s informative intention. Ostensive communication creates a presumption of [optimal] relevance and falls under the [communicative] principle of relevance.

(Wilson and Sperber 1993: 4)

Leaving to the side, for a moment, the technicalities of the relevance-theoretic account, the inclusion in the domain of pragmatics of ostensive forms of information transmission alone raises an important issue: even though relevance theory goes a step further from Grice, in that it deals with the intentional communication of both determinate and indeterminate meaning, regardless of the strength of the evidence provided for it by the communicator’s choice of stimulus, it remains largely non-committal with respect to the role that pragmatic inference may play in interpretation in the absence of ostension. This is of course unproblematic if one delimits one’s scope of enquiry to just instances of overt communication, as relevance theorists customarily do, but the question of whether the study of overt communication exhausts the domain that pragmatic theory can or should target on the whole is certainly still pertinent from a theoretical point of view.

To my mind, insofar as we take pragmatic inference to be central to the study of meaning, at least when it comes to understanding how an intentional agent’s actions – linguistic or otherwise – can be taken to signify differently in different contexts, we should in principle also acknowledge that oftentimes meaningful

information can be expressed or signalled even without an underlying intention to be communicated to someone in particular. As Davis (1992) points out, while specifically discussing speaker meaning:

Many speech acts do require an audience, such as communicating, telling, and informing. We cannot tell, for example, unless we tell someone, and cannot communicate unless we communicate with someone. But meaning, implying, and expressing are different, as are saying, signalling, and indicating. “S meant something” does not require, or even allow, completion by “to.” (Davis 1992: 239)

Since, then, it seems reasonable to suppose that “the absence of [an audience...] does not prevent meaningful speech” (ibid.), it correspondingly follows that pragmatic inference would have a role to play in our study of meaning even in the absence of an overt communicative intention that is to be recognised by the said audience. If that is correct, pragmatics should in principle be able to offer some insight on the way in which we work out the import (intended or otherwise) of not only intentional stimuli that directly claim our attention, but also unintentional ones – which are, however, taken to have been produced by intentional agents³ – that simply catch it.

Against this background, this paper is an attempt to explore the contribution that relevance-theoretic pragmatics can make towards the study of non-ostensive forms of information-transmission. In doing so, I adopt a relevance-theoretic perspective right from the start for the simple reason that, contrary to (neo-)Gricean approaches that “have tended to favour amenability to formalisation over coverage of the full range of interpretive effects,” cognitive approaches to pragmatics, like the relevance-theoretic one, “have tended to do the reverse” (Wilson and Carston 2019: 34), and can thus be expected to at least have something to say about pragmatic processing in the absence of overtness. So, after briefly presenting the basic tenets of the relevance-theoretic account in the following section, I will turn to discuss how the study of non-ostensive information transmission can be taken to

3. It is crucial, I believe, to distinguish between the meaning that can be recovered once a stimulus that is to be interpreted is recognised as having been produced by an intentional agent and the meaning that may be casually constructed when one, say, scrutinises a natural object that simply exists in one’s environment. Even though I do not have enough space to fully develop this argument here, the rationale behind it is that, despite lacking an underlying communicative – or even informative – intention on the part of their producer, those stimuli that are recognised as products of an intentional agent, will, once attended to, invariably lead their interpreter to assess hypotheses regarding the thoughts and perhaps intentions that permeated their original production. If I may be bold enough to say so, this is, to my mind, what essentially distinguishes pragmatic inference from other kinds of inferential reasoning that we spontaneously engage in as we go about our daily lives.

fall quite naturally in its premises, in an argumentation that will eventually lead to the conclusion that pragmatic theory can in fact go beyond the mere identification of communicator-intended meaning.

2. Relevance theory

Relevance theory is grounded on the evolutionary hypothesis that, much like any other biological system, human cognition is an adaptation that has evolved into its current state through Darwinian processes of natural selection. Seeing that at any given moment there are countless stimuli in our environment that compete for our attention, selective pressures for an all the more efficient allocation of cognitive resources should have led our cognitive system to opt for attending to those stimuli from which it stands to gain something, enhancing in this way our chances of survival. From the relevance-theoretic perspective, this cognitive gain is assumed to be information that changes our belief system in non-trivial ways, yielding what relevance theorists refer to as *positive cognitive effects*.⁴ At the same time, the repeated attending to types of stimuli that are expected to provide us with rich positive cognitive effects should have led to the optimization of their processing, and thus a minimization of the *effort* that would be required to compute them. This is in essence what has led Sperber and Wilson (1995: 260) to posit the *cognitive principle of relevance*, according to which “human cognition tends to be geared towards the maximisation of relevance,” and which ultimately predicts that our cognitive system constantly strives to detect all the more positive cognitive effects for as little processing effort as possible.

Once this rationale is applied to communication, it should not be hard to explain how ostensive acts have a genuinely attention pre-empting character. Imagine, for instance, a situation where you are engaged with reading a novel, suddenly hear someone call your name and instinctively turn to see what they want to tell you. In this setting, it is the engagement of the communicator in ostensive behaviour

4. It has been recently suggested that the notion of a positive cognitive effect needs to be complemented by a category of positive perceptual effects (cf. Kolaiti 2019). At the same time, there is also talk about a further supplementary notion of positive emotional effect that clearly underlies emotional communication (cf. Wharton and Strey 2019; de Saussure and Wharton 2019). While I am certain that both these ideas are particularly pertinent to my discussion in this paper, I have had to exclude them from my argumentation to avoid unnecessary complications. A main reason for this is also that the relationship of both these theoretical constructs with ostension is not (yet at least) as straightforward as that of a positive cognitive effect, so there is a chance that their inclusion in this paper would skew the discussion away from what would currently be considered the standard relevance-theoretic account.

that automatically takes your attention away from the novel and focuses it on her prospective informative intention, leaving you no choice but to stop (even if for a moment) reading the text you have in your hands and engage in the comprehension of her upcoming message. Given the cognitive principle of relevance, this happens because ostensive behaviour carries an evolutionary advantage, and thus comes with a tacit guarantee that ‘the communicator’s stimulus will yield enough positive cognitive effects to justify the effort that the addressee will spend processing it,’ as well as that it can be swiftly processed without any doubt, in the first instance, that ‘this stimulus is the most relevant one compatible with the communicator’s abilities and preferences.’ This *presumption of optimal relevance*, as it is dubbed in the *communicative principle of relevance*, is essentially what drives the audience of an ostensive act to automatically engage in the construction of a viable hypothesis about the communicator’s intended import through a process of non-demonstrative inference. In this process, our pragmatic system is called to “determine the context involved in the comprehension of [the ostensive stimulus at hand, ...], determine the [stimulus’...] content on the basis of the context and of the properties of the [stimulus, and ...] draw the intended inferences on the basis of th[is pragmatically enriched] content and the context” (Sperber and Wilson 1982: 61).⁵

Accepting ostension’s attention pre-empting character and combining it with the hypothesis that our cognitive system has evolved to allocate its resources as efficiently as possible allows relevance theorists to further hypothesize that the overall task of inferential comprehension is correspondingly optimized. It is in this sense that the aforementioned tacit guarantee of optimal relevance prescribes the path that an addressee automatically follows when understanding an ostensively stimulus: he always tests interpretive hypotheses in the order in which these become available, that is, in order of accessibility, and stops when he reaches the first hypothesis that can be accepted as the one that the communicator intended him to arrive at in the first place. During this *relevance-based comprehension procedure*, our cognitive system automatically engages in inferential processing that comprises the three aforementioned distinct, albeit complementary, subtasks. This is, in a nutshell, the upshot of the relevance-theoretic account of pragmatics. In essence, it predicts that when we engage in the comprehension of an ostensive stimulus, we automatically test interpretive hypotheses following a ‘path of least effort’, and invariably accept the first one that satisfies our tacit expectation to uncover the communicator’s informative intention. Within the same spirit, when there is no readily available context against which such a hypothesis can be derived, the interpretation of the

5. Even though the particular formulation cited here appears to suggest otherwise, these subtasks of the overall comprehension process are crucially assumed in relevance theory to take place in parallel via a mechanism of mutual parallel adjustment.

stimulus is inevitably abandoned, which effectively leads to a failure in communication. Viewed in this way, comprehension becomes such a streamlined process that relevance theorists in fact eventually proposed that it involves “a sub-module of the mind-reading module,” whose task is to automatically apply the “relevance-based procedure to ostensive stimuli” (Sperber and Wilson 2002: 20).

3. Relevance and the interpretation of non-ostensive stimuli

As we can see from the brief outline above,⁶ the account of pragmatics put forth in relevance theory is squarely based on ostension, since it is typically by being communicated ostensively that a stimulus invariably triggers the postulated comprehension module. A question that immediately arises in the context of the present discussion, however, is whether the presence of ostension is a necessary condition for engaging in the sort of pragmatic inference that is involved in the relevance-based comprehension procedure. Consider, for example, any verbal input that we can just bear witness to by means of overhearing or eavesdropping, or even more general aesthetic experiences involving the interpretation of pieces of art, poetry and literature. Obviously, in this latter case, there may still be a communicative intention on the part of the producer, but to talk of comprehension proper would most likely be a misnomer, since both artworks are best viewed “as instances of ‘weak communication’” (Kolaiti 2009: 89) and literary works are typically treated as instances of communication where “the borderline between authorial intentions and unintended implications becomes increasingly blurred” (Wilson 2018: 189). Apart from this, in this particular setting, there are also works which may have not even been originally intended to be made public, and thus strictly speaking lack an underlying communicative intention altogether, but are still perfectly amenable to pragmatic interpretation, as with the famous example of *The Diary of Anne Frank*. Granted, a case can be made that this particular text was to a certain extent polished with its prospective readership in mind before its eventual publication, but there are still genuine cases in which one would seem to spontaneously engage in pragmatic processing even in the complete absence of an overt communicative intention on the part of some stimulus’ producer. Imagine, for instance, accidentally finding and being tempted to read your partner’s personal diary or your neighbour being able to hear what you say when you and your partner fight over what you ended up doing in this very scenario.

6. For more detailed overviews of the framework, see Wilson and Sperber (2004); Carston (2012); Yus (2015); Assimakopoulos (2017).

Relevance theorists may have not addressed such exotic examples, but they have considered the sort of cases I have in mind and concluded that they fall “outside the scope of pragmatics” because they are not instances of “verbal communication proper”, which only takes place “when the speaker is recognized not just as talking, not even just as communicating by talking, but as saying something to someone” (Sperber and Wilson 1995: 178); that is, when a hearer recognizes that a speaker has engaged in an ostensive act.⁷ Simple introspection, however, clearly suggests that even while processing a non-ostensive, yet potentially informative stimulus that we take to have been produced by an intentional agent, we still process it against a context, and at least try to make sense of it, engaging quite straightforwardly in inference that is quintessentially pragmatic. And this is not the case for linguistic stimuli alone. It applies in pretty much the same way to, say, some impromptu sketches that you may stumble across while going through your partner’s diary in the scenario above.

Naturally, neither the diary nor the overhearing example above can be classified as instances of communication proper, since it is highly unlikely that the producer of the stimuli under question had an intention to inform you or your neighbour of something in either of the two cases. Still, realising that even when we engage in the interpretation of such stimuli we correspondingly engage in pragmatic inference which may or may not yield positive cognitive effects, one cannot help but wonder whether and how their pragmatic processing differs from the one involved in the automatically triggered comprehension of an ostensively communicated counterpart.

As we have already seen, for Wilson and Sperber (1993: 4), this processing would fall “within the scope of a relevance-based theory of cognition” alone, which could at first sight be taken to suggest that it would call for a different account than the one developed within the framework. This, however, would hardly be a way of maximising cognitive efficiency, which, after all, the cognitive principle of relevance itself prescribes, since it would amount to employing different mechanisms to perform what appears to be a single cognitive task, that of pragmatic interpretation. In view of this, I will attempt in this section to extend the standard account of relevance-theoretic pragmatics by proposing that the relevance-based comprehension procedure can be shown to underlie the inferential interpretation of both ostensive and non-ostensive stimuli alike.

7. For an overview of several types of utterance that appear to fall outside the domain of ostensive communication, see Beck (2007: 7–18).

3.1 Comprehension in the absence of ostension

An obvious stumbling block for the argument I am currently pursuing concerns the extent to which the term comprehension could still be taken to apply when we altogether lack a communicative and/or informative intention on the part of a communicator; that is, if someone does not have an intention to inform us of something, can we really say that the processing of her stimulus will lead us to understanding her intended import? This is clearly a thorny philosophical question that I do not have the space to address in as much detail as is needed here. Still, I think it can be straightforwardly overcome once we make a further qualification that was actually put forth by the proponents of relevance theory themselves in some of their earlier work. What I am referring to here is the distinction between *comprehension* (or *understanding*), which by this qualification refers exclusively to “the process by which [...] intended meaning is recovered,” and the more general process of *interpretation* which involves the “recovery not only of the intended message, but also of any further information, not necessarily specifically intended by the [communicator...], which the [addressee...] may derive from [a communicative stimulus...] on his own account” (Wilson and Sperber 1985: 51). At face value, this distinction may appear to be based on a descriptive technicality, hence its eventual bracketing in relevance theory as the framework was further developed,⁸ but, as I will now turn to show, it is a cornerstone idea in the relevance-theoretic rationale that carries significant implications for the present discussion.

Clearly, the immediate starting point in a relevance-theoretic comparison of ostensive communication and non-ostensive information transmission would have to be the most glaring difference between the two types of stimuli involved in each case. That is, in contrast to ostensive stimuli, non-ostensive ones do not come with a presumption of optimal relevance, and thus carry no guarantee that their processing will yield any positive cognitive effects, let alone enough effects to justify the effort an interpreter will have to spend in deriving them. All that this tells us, however, is that, in the presence of a non-ostensive stimulus, pragmatic processing is no longer automatically triggered. In other words, the tacit guarantee of positive cognitive effects from that subset of potentially informative stimuli in our environment that are characterised by ostension may justify the automatic triggering of the comprehension procedure in their presence, but it does not necessarily mean that this procedure applies exclusively to this subset; and clearly, if our everyday experience

8. Even though, shortly after introducing it, relevance theorists reverted to using the terms ‘comprehension’ and ‘interpretation’ interchangeably in their writings, this distinction was recently again alluded to in relevance-theoretic work on literary interpretation (Wilson 2018).

is any indication, the lack of a presumption of optimal relevance certainly does not deter us from still spontaneously *opting* on occasion to interpret non-ostensive stimuli too, since they are also potential sources of positive cognitive effects, which is, after all, what the cognitive principle of relevance takes our cognitive system to target by default.

In fact, it is precisely this bid for maximal relevance that can allow us to posit the same sort of pragmatic processing as underlying the interpretation of both ostensive and non-ostensive stimuli alike. The reason for this is that the cognitive benefit of engaging in pragmatic inference in the first place does not lie in our need to identify some communicator-intended meaning *per se*, but rather in our continuous search for positive cognitive effects, which are crucially changes in *our* belief system. Even in the case of interpreting an ostensive stimulus, the identification of the communicator's informative intention is nothing more than a stepping stone in the derivation of such effects, since as Wilson (2018: 190, emphasis my own) asserts, "in identifying the intended import of an ostensive act, the addressee must *necessarily* go beyond it and draw some conclusions that the communicator need not necessarily either anticipate or endorse." Along the same lines, while discussing the particular case of linguistic communication, Sperber and Wilson (1982: 78) note:

what our theory of relevance implies is that one of the speaker's intentions (and a crucial one) is that the hearer, by recognizing the speaker's intentions, should be made capable of going beyond them and of establishing the relevance of the utterance for himself. This general intention of being relevant gives the crucial guide to recovery of the meaning, references and inferences (if any) intended by the speaker. A successful act of comprehension (which is what is aimed at by both speaker and hearer) is one which allows the hearer to go beyond comprehension proper.

If anything, this is why disfluencies in communication do not just occur when an ostensive stimulus fails to substantiate the communicator's informative intention, but also when it fails to yield positive cognitive effects for the addressee. As Blakemore (1987) exemplifies, this can be seen

when we consider the kind of response typically made by hearers who have failed to grasp the relevance of a remark – 'So *what?*' or perhaps just 'So?'. Such a response indicates that although the hearer has grasped the content of the utterance [...] he cannot see what it implies, and, moreover, that [...]he believes that [...]he is expected to derive some implications. [His...] problem, then, is that [...]he has not been able to access information that [...]he can combine with the newly presented information for the application of a synthetic rule [that will provide him with positive cognitive effects].
(Blakemore 1987: 49)

Obviously, in such cases the hearer will wonder about the speaker's point in uttering what she did, but he will do so only after he has already engaged in the comprehension of her utterance and formed a viable hypothesis regarding her informative intention. So, despite the otherwise successful comprehension of the utterance at hand, the addressee fails to derive any positive cognitive effects.

What this effectively suggests is that, even in the paradigm case of ostensive communication, comprehension is not an independent, self-sustained process; rather, it is embedded in a more general interpretive process whose aim is to derive the expected positive cognitive effects that the presumption of optimal relevance foresees. This much is a central tenet of relevance theory, insofar as Wilson and Sperber (1985: 51) themselves also point out that "comprehension can be most usefully studied as part of the broader interpretation process," which in turn "subsumes, but goes beyond, comprehension." By this token, what actually drives the pragmatic processing of ostensive stimuli is not really a need to recover some communicator-intended import, but rather the tacit expectation that this import will be useful for the interpreter by giving rise to positive cognitive effects, which are, after all, the eventual products of this processing that his cognitive system will benefit from.

If that is correct, neither the process itself nor its motivation offer adequate reason to suppose that the comprehension of ostensive stimuli is all that different from the process via which we form and assess interpretive hypotheses regarding the inherent information provided by non-ostensive ones. What differs in this latter case is that understanding is not necessarily tied to the calculation of our familiar set of intentions that are attributed to a communicator who engages in ostension. While processing an ostensive stimulus, the interpreter automatically expects that his comprehension of the stimulus will lead to the generation of positive cognitive effects, at least some of which would be the ones that the communicator had originally intended him to arrive at. When, on the other hand, the interpreter chooses or simply happens to focus his attention on a non-ostensive stimulus, he may not have any automatic expectations of positive cognitive effects, but still engages in comprehension because, as we will see later on, he has reason to anticipate that this processing will, again, yield such effects; albeit not necessarily ones that would have been intended by the communicator. Even in this latter case though, the interpreter clearly engages in what correspondingly amounts to an exercise in mindreading, whereby, in his search for positive cognitive effects, he assesses interpretive hypotheses regarding the meaning that the producer might have had in mind while generating the stimulus in the first place.

3.2 The pragmatic processing of non-ostensive stimuli

Having argued for an equation of the processing that underlies the interpretation of both ostensive and non-ostensive stimuli, it is now time to turn to the actual procedure through which this processing could be assumed to take place. After all, as we have already seen, relevance theory posits a dedicated procedure for the comprehension of ostensive acts of communication, so in support of the argument pursued in this paper, a further explanation would be needed as to how this same procedure could be taken to apply to non-ostensive information transmission too.

The main challenge in this regard is to show how the relevance-based comprehension procedure could be taken to be independent from the presumption of optimal relevance that only ostensive stimuli communicate by default, as in the opposite case it would be taken to apply to the processing of these stimuli alone. To my mind, this challenge is pertinent only when it comes to the second part of the relevance-based comprehension procedure, according to which, the addressee of an ostensive stimulus automatically stops processing it once his expectations of relevance are satisfied or, in the case of miscommunication, abandoned. The reason for this is that the argument for the assessment of interpretive hypotheses in order of accessibility, as per the first part of the procedure, appears to be entirely motivated by the cognitive principle of relevance, and can thus be taken to straightforwardly apply to the interpretation of non-ostensive stimuli too. That is because it is the relevance-theoretic account of cognition, rather than that of communication, which predicts that both the organisation of our cognitive resources and the way in which all mental computations take place are directed by our cognitive system's predisposition to achieve maximal relevance; enabling thus Sperber and Wilson (1996: 532, emphasis in original) to claim that "[m]inimizing effort [...] is not just reasonable thrift, it is an *epistemically* sound strategy."

When it comes to the second part of the relevance-based comprehension procedure, however, its applicability to the interpretation of non-ostensive stimuli can only be established through a careful evaluation and comparison with the sort of expectations of relevance that ostensive stimuli correspondingly give rise to. The most obvious one of these would, of course, again be the expectation of optimal relevance that every act of ostensive communication automatically triggers. But, as we have already seen, this expectation primarily dictates the extent to which an individual can choose to engage in pragmatic processing, rather than the way in which this processing actually takes place. To reiterate the relevant argument, given their attention pre-empting character, ostensive stimuli give the interpreter no choice in the matter and effectively force him to work out their intended import in the interest of deriving the automatically anticipated positive cognitive effects. By contrast, in the presence of non-ostensive stimuli, it would fall upon the interpreter

himself to choose whether to engage in the relevant pragmatic processing and to determine how much effort he will spend doing so. Again, however, once he focuses his attention on such a stimulus, the likelihood of achieving positive cognitive effects is not directly linked to *how* he interprets it.

Granted, in the absence of ostension, comprehension may not necessarily stop the moment that some meaning is recognised as fulfilling a tangible informative intention on the part of the stimulus producer, as the presumption of optimal relevance would otherwise warrant, but this does not mean that the procedure is entirely unconstrained in this context either. After all, as Wilson and Matsui (1998: 193) assert, even when it comes to the interpretation of an ostensive act's intended import, there can still be further expectations of relevance that have a direct bearing on the comprehension process:

An individual who has specific expectations of cognitive effects should pay attention to stimuli in his environment which are likely to yield these effects, whether or not these stimuli are intrinsically salient. Similarly, retrieval mechanisms may search for background assumptions that are not otherwise highly accessible, but which may allow the derivation of the expected effects. Thus, expectations of cognitive effect may alter the accessibility of candidate interpretations.

Such more specific expectations of relevance can be seen to correspondingly arise in the context of non-ostensive information transmission too. Imagine, for instance, choosing a book to borrow from your local library. While skimming through what is available, your evaluation of any particular candidate book will be swiftly abandoned if the content that you are interpreting (that is, the book's title, cover and perhaps also summary) does not combine well with the contextual assumptions that you employ in the process, since, among other things, your selected context for interpretation will inevitably include assumptions pertaining to your general preferences. In this case, your expectations of relevance will be satisfied if the interpretation of a book's content⁹ gives rise to the right sort of contextual implications

9. In relation to this scenario, one might argue that all the books in the library are to a certain extent ostensive stimuli, in that their producers engage in (at least some weak form of) communication through which they want to advertise their product or simply inform you about it. In order to make the example even more transparent, imagine that there were a section in the library where the personal, handwritten diaries of famous people were kept and that you were somehow allowed to borrow one of them too, if you so wanted. In this case, there is certainly no reason to assume that your options comprise ostensive stimuli, since there was no communicative or informative intention leading to their original production. Even so, chances are that you will still engage in the same sort of pragmatic processing described here as you swiftly skim through some pages in each diary you decide to consider; that is, you will start interpreting what you see therein despite this information not having been ostensively communicated to you in the first place.

given your initial goal. But even in cases where you just happen to focus your attention on a non-ostensive stimulus and spontaneously start interpreting it, you immediately get a clearer idea of the kind of cognitive effects it can provide you with. Returning to the scenario of you stumbling across your partner's diary, for example, once you realise that what you are looking at is their diary, you will have specific expectations not only about the kind of information you can find in it, but also, and more crucially, about the ways in which this information can impinge on your belief system. After all, this is what ultimately creates a stronger temptation to go on reading the diary which you probably would not have if, say, you came across a handwritten collection of recipes instead.

Following this rationale, the only difference between the inferential recovery of a stimulus' meaning in the absence of ostension when compared to the same stimulus being embedded in an ostensive act would be a much higher likelihood that the interpreter will abandon the interpretation process much faster than he would in the latter case. Still, this is, again, hardly a reason to contend that he would follow a different procedure than the one already prescribed by the relevance-theoretic path of least effort. In fact, in the absence of a communicative intention that would warrant the existence of enough positive cognitive effects to justify the effort in retrieving them, there would probably be little reason to engage in pragmatic processing without at least some indication of the particular positive cognitive effects that this processing would be likely to yield; and the realisation that we can and very often do casually opt to engage in it would suggest that we do so because we can easily anticipate to get something in return.

As to the amount of effort that an interpreter would dedicate to the interpretation process before abandoning it, this would correspondingly depend on his particular expectations for specific positive cognitive effects. As Blakemore asserts (1987:20), this much can also be observed in the context of ostension too, whereby a hearer might be "prepared to put more effort into extracting information from a remark made in a lecture than []he would into the interpretation of a remark made during a leisurely chat over dinner." Still, even in this case, "the amount of effort that any person actually puts into the interpretation of an utterance [...] may affect the way that the hearer puts her knowledge of pragmatic principles to use, [... but it does] not affect the mental structure in terms of which this knowledge must be analysed" (ibid.).

It therefore seems that, once we move beyond the question of how ostensive and non-ostensive stimuli impinge on our attention and respectively manage to trigger pragmatic inference, there are overwhelming parallels in the way in which their underlying processing can be assumed to take place. Seeing also that what drives pragmatic interpretation in both settings is the search for positive cognitive effects – whether expected, as in the case of ostensive stimuli, or spontaneous, as

in the case of non-ostensive ones – this does not appear to be coincidental; it is, rather, a natural consequence of our cognitive system’s bid for maximal relevance. All in all, what this suggests is that ostension may be an automatic trigger of the pragmatic module that relevance theorists posit, but this does not necessarily mean that it alone has exclusive access to this module’s domain (for a relevant discussion along these lines, see Sperber 1994: 50–53).

4. Pragmatics and the territory beyond meaning

In line with the central theme of this volume, the aim of the present reappraisal of relevance theory has been to reveal how it can shed even more light to questions that are peripheral to the study of communicator-intended meaning.

In retrospect, what I hope to have shown is that pragmatic inference, of the familiar sort that the framework deals with, is not just central to the study of overt communication, but also has a bearing on the way in which we interpret non-ostensive stimuli too, for the simple reason that they have the potential to carry information which is capable of providing us with positive cognitive effects. And crucially, in order to work out these positive cognitive effects, we need to first assess interpretive hypotheses about a non-ostensive stimulus’ import; that is, we need to work out the meaning that its producer had in mind when producing this stimulus regardless of whether it was ostensively communicated to us or not.

What allows for the development of this argument is the actual way in which the theory’s postulated mechanisms are cognitively grounded. So, even though we can in principle isolate comprehension as “the sole object of concern to pragmatics” (Wilson and Sperber 1985: 51) when we follow the standard description of the field provided at the beginning of this paper, the psychological reality of the processing that underlies it renders it an intrinsic part of a more general interpretive process whose ultimate aim is to yield positive cognitive effects. That is, for better or worse, comprehension does not take place just for the sake of understanding a communicator’s informative intention, but rather because this understanding is tacitly expected to provide the addressee with information that will meaningfully impinge on his belief system; a conclusion that is hardly surprising, if one considers the evolutionary advantage of useful information as opposed to communicator-intended meanings *per se*.

Seeing, then, that the same kind of pragmatic inference can be taken to underlie interpretation in all instances of information transmission across intentional agents, it seems natural to conclude that the domain of pragmatics can in principle be extended to include phenomena that lie outside the strict limits of overt communication. All that this takes is to shift our focus from the way in which some information

is transmitted by the producer of a stimulus to the way in which we spontaneously interpret that stimulus once it catches our attention. Evidently, given its attention pre-empting character, ostensive communication remains the paradigm case for the investigation of pragmatic inference; if anything, there is even a high chance that our ability to engage in pragmatic processing has evolved in response to natural selection pressures for an all the more efficient attribution of communicative intentions in the first place. Yet, our obvious engagement in pragmatic inference even in the absence of ostension should suffice to justify a reappraisal of pragmatic theory's connection with objects of study that transcend the traditional restraints of meaning_{NN} and ostensive communication. If this collective volume is any indication, this appears to be a particularly fruitful avenue for research, which may even allow us to eventually address those questions that, according to scholars in the socio-cultural-interactional tradition, theories of inferential pragmatics have ignored for so long.

References

- Assimakopoulos, Stavros. 2017. "Relevance." In *The Routledge Handbook of Pragmatics*, ed. by Anne Barron, Yueguo Gu, and Gerard Steen, 310–322. London: Routledge.
<https://doi.org/10.4324/9781315668925-24>
- Beck, Hanno T. 2007. "Comprehension Procedures and Non-communicative Utterances." MS. Retrieved from: https://semanticsarchive.net/Archive/GEzZGEyO/Beck_2007.pdf.
- Blakemore, Diane. 1987. *Semantic Constraints on Relevance*. Oxford: Blackwell.
- Carston, Robyn. 2012. "Relevance theory." In *The Routledge Companion to the Philosophy of Language*, ed. by Gillian Russell, and Delia Graff Fara, 163–176. London: Routledge.
- Davis, Wayne. 1992. "Speaker Meaning." *Linguistics and Philosophy* 15: 223–253.
<https://doi.org/10.1007/BF00627678>
- de Saussure, Louis, and Tim Wharton. 2019. "La notion de pertinence au défi des effets émotionnels [Relevance and emotional effects]." *TIPA. Travaux interdisciplinaires sur la parole et le langage* 35. Retrieved from: <https://journals.openedition.org/tipa/3068>.
- Grice, H. Paul. 1957. "Meaning." *Philosophical Review* 66: 377–388.
<https://doi.org/10.2307/2182440>
- Grice, H. Paul. 1969. "Utterer's Meaning and Intention." *Philosophical Review* 78: 147–177.
<https://doi.org/10.2307/2184179>
- Grice, H. Paul. 1989. *Studies in the Way of Words*. Cambridge, MA: Harvard University Press.
- Haugh, Michael. 2008. "Intention in Pragmatics." *Intercultural Pragmatics* 5: 99–110.
<https://doi.org/10.1515/IP.2008.006>
- Kolaiti, Patricia. 2009. "The Limits of Expression: Language, Poetry, Thought." PhD diss., University College London.
- Kolaiti, Patricia. 2019. *The Limits of Expression: Language, Literature, Mind*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290746>
- Levinson, Stephen C. 1983. *Pragmatics*. Cambridge: Cambridge University Press.
<https://doi.org/10.1017/CBO9780511813313>

- Mey, Jacob L., and Mary Talbot. 1988. "Computation and the Soul." *Journal of Pragmatics* 12: 743–789. [https://doi.org/10.1016/0378-2166\(88\)90056-2](https://doi.org/10.1016/0378-2166(88)90056-2)
- Sperber, Dan. 1994. "The Modularity of Thought and the Epidemiology of Representations." In *Mapping the Mind: Domain Specificity in Cognition and Culture*, ed. by Lawrence A. Hirschfeld & Susan A. Gelman, 39–67. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511752902.003>
- Sperber, Dan, and Deirdre Wilson. 1982. "Mutual Knowledge and Relevance in Theories of Comprehension." In *Mutual Knowledge*, ed. by Neil V. Smith, 61–85. London: Academic Press.
- Sperber, Dan, and Deirdre Wilson. 1995. *Relevance: Communication and Cognition*. 2nd ed. Oxford: Blackwell.
- Sperber, Dan, and Deirdre Wilson. 1996. "Fodor's Frame Problem and Relevance Theory." *Behavioral and Brain Sciences* 19: 530–532. <https://doi.org/10.1017/S0140525X00082030>
- Sperber, Dan, and Deirdre Wilson. 1997. "Remarks on Relevance Theory and the Social Sciences." *Multilingua* 16: 145–151. <https://doi.org/10.1515/mult.1997.16.2-3.145>
- Sperber, Dan, and Deirdre Wilson. 2002. "Pragmatics, Modularity and Mind-Reading." *Mind and Language* 17: 3–23. <https://doi.org/10.1111/1468-0017.00186>
- Sperber, Dan, and Deirdre Wilson. 2015. "Beyond Speaker's Meaning." *Croatian Journal of Philosophy* 15: 117–149.
- Verschueren, Jef. 1999. *Understanding Pragmatics*. London: Hodder Arnold.
- Wharton, Tim. 2008. "Meaning_{NN}' and 'Showing': Gricean Intentions and Relevance-Theoretic Intentions." *Intercultural Pragmatics* 5: 131–152. <https://doi.org/10.1515/IP.2008.008>
- Wharton, Tim, and Claudia Strey. 2019. "Slave to the Passions: Making Emotions Relevant." In *Relevance: Pragmatics and Interpretation*, ed. by Kate Scott, Billy Clark, and Robyn Carston, 253–267. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290593.022>
- Wilson, Deirdre. 1993. "Relevance and Understanding." *Pragmalingüística* 1: 335–366.
- Wilson, Deirdre. 2018. "Relevance Theory and Literary Interpretation." In *Reading Beyond the Code: Literature and Relevance Theory*, ed. by Terence Cave, and Deirdre Wilson, 185–204. Oxford: Oxford University Press.
- Wilson, Deirdre, and Robyn Carston. 2019. "Pragmatics and the Challenge of 'Non-propositional' Effects." *Journal of Pragmatics* 145: 31–38. <https://doi.org/10.1016/j.pragma.2019.01.005>
- Wilson, Deirdre, and Dan Sperber. 1985. "On Choosing the Context for Utterance-Interpretation." In *Foregrounding Background*, ed. by Jens Allwood, and Erland Hjelmquist, 51–64. Lund: Doxa.
- Wilson, Deirdre, and Dan Sperber. 1993. "Linguistic Form and Relevance." *Lingua* 90: 1–25. [https://doi.org/10.1016/0024-3841\(93\)90058-5](https://doi.org/10.1016/0024-3841(93)90058-5)
- Wilson, Deirdre, and Dan Sperber. 2004. "Relevance Theory." In *The Handbook of Pragmatics*, ed. by Lawrence R. Horn, and Gregory Ward, 607–632. Oxford: Blackwell.
- Yus, Francisco. 2015. Relevance Theory. In *The Oxford Handbook of Linguistic Analysis*. 2nd ed., ed. by Bendt Heine, and Heiko Narrog, 642–662. Oxford: Oxford University Press.

Contrastive stress in English

Meaning, expectations and ostension

Kate Scott

Kingston University London

In this chapter I consider where contrastive stress fits within the relevance-theoretic model of utterance interpretation. In particular, I focus on contrastive stress as a cue to ostension which layers on top of the ostensive act of producing an utterance and which guides inferential processes. Stress patterns, however, only act as a cue to ostension when they are unexpected. It is the disconfirmation of expectations that puts the hearer to more effort and prompts the search for extra interpretive effects. The discussions in this chapter build on existing work on both prosody and pragmatics and the conclusions drawn have implications for our understanding of inferential processes, procedural meaning, and ostensive communication more generally.

Keywords: ostension, procedural meaning, prosody, contrastive stress, cues to ostension, intonation, expectations, relevance theory

1. Introduction

In English, the prosody of a spoken utterance can directly affect the meaning that it conveys. In this chapter, I consider how the use of so-called contrastive stress interacts with meaning in English. Cross-linguistically, a stressed syllable is one that is produced with “greater articulatory care” (Gussenhoven 2004: 15). In English this is “realized by a combination of loudness, pitch and duration” (Wells 2006: 3). Some stressed syllables also carry an accent in English. A syllable is accented when “we add pitch prominence (=a change in pitch, or the beginning of a pitch movement) to the rhythmic prominence that a stressed syllable bears” (Wells 2006: 7). The final accented syllable in an intonation phrase is known as the nuclear accent, and it is “the most important accent in the IP” (Wells 2006: 7). The focus of this chapter is a prosodic phenomenon which is often referred to in the literature as “contrastive stress” (Sperber and Wilson 1986/95: 212) or “contrastive focus” (Wells 2006: 119).

In cases of contrastive stress, the placement of the nuclear accent draws attention to a particular part of the intonation phrase, often in order to imply a contrast of some sort. This is illustrated in Example (1) taken from Sperber and Wilson (1986/95: 213). The nuclear syllable is shown in upper case.

- (1) YOU must do the washing up.

Elsewhere, (Sperber and Wilson 1986/95; Grice 1989; Wilson and Wharton 2006; Wharton 2009; Scott 2017; 2020) contrastive stress in English has been characterised as a “natural highlighting device”, and in Scott (2017), I demonstrated that it can lead to different interpretative effects. It may, for example, affect how reference is resolved, or it may be used to communicate information about the speaker’s attitudes or emotions. In all cases, it guides the hearer’s inferential processes when deriving a speaker’s overall intended meaning. In this chapter, I consider where contrastive stress fits within the relevance-theoretic model of utterance interpretation (Sperber and Wilson 1986/95; Carston 2002; Wilson and Sperber 2012; Clark 2013), and I also consider how it relates to other devices which speakers may employ to guide inferential processes – so-called procedural meaning. I particularly focus on contrastive stress as a cue to ostension which layers on top of the ostensive act of producing an utterance. However, stress only acts as a cue to ostension when it is unexpected. It is the disconfirmation of the hearer’s expectations that draws his attention, putting him to more effort and prompting the search for extra interpretive effects.

I begin in Section 2 by providing a brief overview of the ways in which contrastive stress can contribute to a speaker’s meaning in English, and I briefly outline some of the existing discussion on the data. In Section 3, I introduce and discuss the relevance-theoretic notion of ostension and the role it plays in triggering pragmatic processes. I consider how the disconfirmation of a hearer’s expectations can act as a cue to ostension. In Section 4, these ideas are brought together and applied to the case of contrastive stress in English, and then finally, in Section 5, I briefly consider how we might view these processes as part of the wider relevance-based model of utterance interpretation.

2. Contrastive stress, interpretation and natural highlighting

Consider the examples in (2)–(6), taken from House (2006) and where upper case indicates which syllable carries the nuclear accent.

- (2) Jenny teaches vioLIN.
 (3) Jenny TEACHes violin.

- (4) JENNY teaches violin.
 (5) | Andrew hit BEN | and then he hit FaROOQ |
 (6) | Andrew hit BEN | and then HE hit Farooq |

According to House (2006: 1545) accent placement affords the host word “relative importance in the situation in which we make the utterance” (2006: 1545). As illustrated in examples (5) and (6), taken from Scott (2017; 2020), placing the nuclear tone on a pronoun changes how reference for that pronoun is resolved. It is generally agreed that the pronoun *he* in (5) is co-referential with the subject of the first conjunct, in this case Andrew. In (6), however, the interpretation is different, and accented *he* refers either to Ben or to some other salient male in the discourse context. By placing an accent on *he* in (6), the speaker has changed the way in which reference will be resolved, and has thus changed the proposition that has been expressed.

However, it is not always the case that adding an accent to a pronoun leads to a difference in reference resolution and therefore to a difference in the proposition that the utterance explicitly communicates. Consider, for example, the utterance in (7), spoken by two guests at a party as a new guest arrives, and as discussed in Scott (2017; 2020).

- (7) Nobody told me SHE was coming.

In this discourse context, and assuming that the guests have their attention focused on the new arrival, the use of contrastive stress on the pronoun *she* does not change how the hearer is likely to resolve reference.¹ Both speaker and hearer are clear who the pronoun refers to, and there are no other likely candidate referents in the discourse context. Instead, the contrastive stress is used to indicate that the speaker has some strong opinion about the referent, which she wishes to communicate. Whether this opinion is taken to be positive or negative will depend on the discourse context. That is, it will depend on the assumptions that the speaker and hearer bring to the interpretation. It is also likely to be influenced by other extra-linguistic factors such as the speaker’s facial expressions or her use of an affective tone of voice.

Furthermore, as illustrated by House’s examples in (2)–(4), the use of contrastive stress to change interpretations is not restricted to pronouns or to referring expressions generally. We also find instances where contrastive stress occurs with

1. As pointed out by an anonymous reviewer, the contrastive stress on *she* appears to rule out a bound variable interpretation (“There is no female individual *x* such that that individual told me that she was coming”), which is available when the pronoun is unstressed. However, in the discourse context described here and with the attention of both interlocutors fixed on the new guest, the most accessible interpretation appears to be the same in both the stressed and unstressed versions.

other parts of language and, indeed, even within words themselves. As discussed by Scott (2017), Imai (1998: 70) provides the example in (8), taken from a cartoon in *The New Yorker* magazine. This utterance was provided as the caption to a cartoon depicting a doctor's office with a patient hanging upside down from the ceiling.

- (8) [O]ur first concern is to persuade the patient that he is a stalagMITE.

The shift of stress from the first to the last syllable of *stalagmite* encourages the addressee to search for a contrastive interpretation related to that syllable.

According to the relevance-theoretic pragmatic framework, a hearer is searching for an optimally relevant interpretation. That is, he is searching for an interpretation that is worth the cognitive effort that he has invested in processing the input. He will be looking for why it would be relevant to try to persuade the patient that he is a stalagmite. To derive an interpretation, the hearer will follow the relevance-theoretic comprehension procedure and will test interpretative hypotheses in order of accessibility. Starting with the most accessible, he will look for ways in which the speaker's utterance might combine with accessible assumptions to yield enough cognitive effects to justify the effort. The speaker's use of the word *stalagmite* will make a range of assumptions accessible to the hearer. These are likely to include, for example, the assumption that stalagmites and stalactites are often discussed together and, indeed, are often confused with one another. The addressee may also access the assumption that one of them forms upwards from the ground, while the other forms downwards from a ceiling. Given these highly accessible assumptions, drawing attention to the part of the word that distinguishes which of two very similar and closely associated concepts is being referred to is likely to focus the addressee's attention on the difference. Thus, the addressee is encouraged to assume that that patient is hanging from the ceiling because he believes himself to be a stalactite. It follows that the doctor is intending to communicate that first and foremost they must get him down onto the ground and they can deal with his delusions later.

Lexical stress patterns in words or compounds can also be overridden to achieve contrastive effects. This is illustrated in (9), where the addressee is encouraged to focus his attention on the contrast between a present and a card.

- (9) | I got her a birthday PRESent | but I didn't get her a birthday CARD | .
(Wells 2006: 133)

Sperber and Wilson (1986/95: 213), following discussion in Grice (1989: 50–53), suggest that contrastive stress is a “natural highlighting device”. They draw parallels between this and cases of pointing. Contrastive stress, they suggest, is “a sort of vocal equivalent of pointing, a natural means of drawing attention to one particular

constituent in an utterance” (Sperber and Wilson 1986/95: 203). Instead of directing the hearer’s attention to an object in the physical context, contrastive stress highlights a specific part of a spoken utterance. A similar role might be played in writing by underlining or presenting a word or phrase in bold text or italics (Scott and Jackson, 2020).

In the rest of this chapter I will argue that contrastive stress, like pointing, is a “cue to ostension” and that it draws the hearer’s attention because it deviates from what is expected in terms of prosody. In the next section, I lay the groundwork for this analysis by briefly outlining the relevance-theoretic notion of ostension and by considering the role that expectations might play in drawing a hearer’s attention.

3. Relevance, ostension and the role of expectations

According to relevance theory (Sperber and Wilson 1986/95; Carston 2002; Wilson and Sperber 2012; Clark 2013), the domain of pragmatics should be taken to include all instances of overt intentional communication. The relevance-theoretic interpretation heuristics are triggered by any behaviour that is ostensively communicative. That is, it is triggered by acts which “attract an addressee’s attention and focus it on the communicator’s intentions” (Wilson and Carston 2019: 4). Acts of speaking, writing, or signing utterances are ostensive acts, but, as Wilson and Carston point out, there are a range of other behaviours which might also be used as “cues to ostension”. These include “catching someone’s eye, touching... pointing, [or] showing... something” (Wilson and Carston 2019: 4). Indeed, it has long been acknowledged within the relevance-theoretic approach to utterance interpretation that pragmatic interpretative mechanisms and heuristics are triggered not only by utterances but by any behaviour which “makes clear an intention to communicate” (Clark 2013: 113).

While ostensive communication might often make use of the conventionally encoded, non-natural meaning that we find in linguistic content, it can also involve non-linguistic codes such as facial expressions (Wharton 2009) and acts of showing. Even naturally occurring behaviours that have no inherently communicative basis such as shivering or yawning can be put to an ostensive communicative purpose if they are deliberately and openly shown to an audience (see Wharton (2009) for more discussion).

According to the communicative principle of relevance, a hearer is entitled to assume that any of these ostensive acts will be optimally relevant. That is, he is entitled to assume that it will be (a) relevant enough to be worth his effort to process and (b) the most relevant one compatible with the communicator’s abilities and preferences. A direct consequence of this principle and of the definition of optimal

relevance is that if the form of the utterance puts the hearer to more effort than an alternative utterance that the speaker could realistically have produced, then the hearer will expect to be rewarded with extra effects. This is not to say that the hearer makes any conscious, online comparison between the actual utterance and potential alternatives (although analysts may do so), but rather that interpretation induces processing effort, and the level of processing effort raises corresponding expectations of levels of cognitive effects. The level of processing effort associated with a particular utterance is affected by a range of factors including the recency and frequency of use of the expressions and structures used. Consider, for example, the utterances in (10) and (11).

(10) John handed Mary the cup of hot coffee.

(11) John handed Mary the cup of hot coffee-flavoured liquid.

A cup of coffee is, by definition, a cup of coffee-flavoured liquid, and so both (10) and (11) could be used to describe the same event. However, all else being equal, we would expect a speaker to use (10) rather than (11) to describe a normal instance of John handing Mary a cup of coffee. The referring expression in (10) is shorter, and, more significantly for the discussion here, is the more frequent way to refer to a cup of coffee. If a speaker chooses to utter (11), we must infer that not all else is, in fact, equal. We must assume that the longer, less frequently used expression has been chosen because it is the most efficient way to communicate the speaker's overall message. As it puts the hearer to more effort, it must yield effects not available from processing (10), and these effects are assumed to be part of what the speaker intended to communicate. Perhaps the most accessible interpretation in this case would be that the substance in the cup does not truly warrant being called coffee and is only a poor imitation. As Wilson and Carston (2019: 4) note “departures from expected syntax, wording, or prosody... provide cues to ostension, focussing attention on particular aspects of the ostensive act and encouraging a search for additional interpretive effects”. In example (11), attention is focused on the choice of referring expression. It is not what the hearer might have expected. In the cases of contrastive stress, it is an unexpected prosodic pattern that acts as the cue to ostension. The contrastive stress both triggers the search for additional effects and focuses attention on where the addressee might expect to find those effects.

4. Contrastive stress as a cue to ostension

In this section, I take a closer look at how contrastive stress functions as a cue to ostension, and in particular at the role that expectations play in this. By using a contrastive prosodic pattern, a speaker provides an additional cue to ostension. As

we have seen, on a relevance-based approach, syllables that bear contrastive stress are treated as naturally highlighted. They stand out as prominent, and as such they draw the hearer's attention. The story could, of course, end there. There is, after all, a natural link between things that are perceptually more prominent and those which have a higher likelihood of relevance. Our attention is naturally drawn to stimuli which are louder or brighter than their surroundings. However, at least two further issues must be addressed. First, as Sperber and Wilson (1986/95: 212) and Wilson and Wharton (2006: 1567) discuss, contrastive stress is language specific. It can, for example be used more freely in English than in French. One way to account for this cross-linguistic variation is to make a connection between prosodic patterns and processing effort. If, as Wilson and Wharton discuss, a contrastive pattern is more disruptive in one language than in another, then we might expect it to be costlier in terms of processing effort. They continue:

It follows from the Communicative Principle of Relevance that if two stress patterns differ in the amounts of processing effort required, the costlier pattern should be used more sparingly, and only in order to create extra, or different, effects
(Wilson and Wharton 2006: 1567).

The notion that contrastive stress involves a confounding of expectations offers a way to understand why patterns might differ in terms of how disruptive they are, cross-linguistically. As Wharton (2009: 144) explains, "the same prosodic input may be more or less costly for hearers to process depending on what prosodic contours they are normally exposed to".

Second, the accenting of a syllable in English does not always and necessarily lead to contrastive effects. All intonational phrases in English contain at least one accented syllable which carries the nuclear tone, and that syllable will be perceptually more prominent than the other syllables in the intonation phrase. However, it will only draw the hearer's attention and therefore act as a cue to ostension if it is unexpected. English speakers expect the nuclear accent to occur on the stressed syllable of the last content word of the intonation phrase, producing so-called unmarked tonicity. Consider again, the example in (2) from House (2006), repeated here.

(2) Jenny teaches violIN.

When spoken with unmarked tonicity, an English speaker will place the nuclear tone on the final syllable of *violin*. This is the stressed syllable of the last content word in the intonation phrase. Thus while there is an accented syllable in the utterance in (2), there is no contrastive reading. It is not, therefore, the use of stress per se that creates a contrastive reading. The act of accenting a syllable only draws attention and thus becomes ostensive when it is unexpected. While the prosodic pattern in (2) does not encourage a contrastive interpretation, the patterns in (3)

and (4) do. In (3) we look for some extra cognitive effect associated with the fact that Jenny teaches, rather than, perhaps only plays, makes, or sells violins. Alternatively, (3) could be used to correct someone who held the mistaken assumption that Jenny does not teach violin. Similarly, unexpected placement of the accent on *Jenny* in example (4) encourages us to look for cognitive effects associated with it being Jenny, and not someone else, who plays the violin. If, however, the speaker wishes the addressee to derive some extra effects from the fact that it is the violin, and not some other instrument, that Jenny plays, placing the nuclear accent on *violin* will not be sufficient. This would not be unexpected and therefore would not draw the hearer's attention and act as a cue to ostension. Rather, if the speaker wishes to encourage this interpretation, she must do something else to trigger a search for extra effects. She could, for example, use an exaggerated, and therefore unexpected, pitch pattern on the nuclear tone, and cue the hearer in that way. A parallel might fruitfully be drawn with the bright lights and loud noises that naturally draw our attention as we navigate the world seeking relevant inputs. In the context of a firework display where loud bangs and bright lights are expected, we will not attribute any particular relevance to them beyond their entertainment value, and it will take an extra loud bang or an extra bright light to particularly draw our attention.

Returning to the examples in (5) and (6), we can again see how a hearer's expectations play a crucial role in how the utterances are interpreted. In English, pronouns are not usually accented (Wells 2006). They are most commonly used to refer to given information and a hearer will be expecting them to be unaccented. This is what we find in example (5). The prosody of the utterance follows an expected pattern, and the hearer will test out, and is likely to settle on, Andrew as the intended referent of *he*. Matsui (2000) discusses various factors which might contribute to the accessibility of a candidate referent, including order of mention, syntactic position, and parallel function, as well as the semantics of the main verb and the accessibility of contextual assumptions. In (5), Andrew is likely to be the most accessible candidate referent as he has already been established as both a syntactic subject and a semantic agent via the first conjunct. Furthermore, given that the first conjunct has established Andrew as somebody who hits other people, this interpretation is also likely to be accepted on pragmatic grounds.

However, when a speaker places an accent on a pronoun, as in example (6), she is confounding the hearer's expectations that the pronoun will be unaccented. In doing so she puts the hearer to more effort. To justify this extra effort the hearer must look for extra effects. The unexpected prosodic pattern is a cue to ostension.

However, as a natural highlighting device, contrastive stress is not only a cue to ostension; it also simultaneously directs the hearer to where he might expect to find the intended extra effects. When a particular part of the utterance is highlighted by the speaker, the hearer will follow the path of least effort in looking for why this

may be relevant. As Wharton (2009: 29) puts it, “someone who is ‘deliberately and openly’ letting someone know something encourages their audience to think that they have done so for a reason, and to continue looking until they have found it”. Sax (2011: 352) makes a similar point when he describes sentence stress in English as drawing “the hearer’s attention to a particular stage of processing as being particularly worthy of an investment of effort”. The suprasegmental quality of prosody means that the hearer can both confound expectations by deviating from the expected prosodic pattern, triggering the search for extra effects, and simultaneously use the prosody to naturally highlight where the hearer might expect to find those extra effects. She directs the hearer’s attention to the pronoun in (6), and so guides the hearer in the inferential path that he should take. In this case, an interpretation on which Ben hits Farooq supplies those effects. The effects which justify the extra effort come via the different, less anticipated proposition expressed that the hearer is encouraged to derive, and perhaps by the negation of the expected interpretation. The hearer’s attention is drawn to the pronoun, and resolution of that pronoun on a different male is a highly accessible interpretation, given the discourse context.

As we have seen, contrastive stress has been described as the vocal equivalent of pointing and in many ways, we might think of the speaker as, in some way, pointing to a part of the utterance with her voice. However, a physical point is, in and of itself, an ostensive act. Contrastive stress, on the other hand, layers on top of another ostensive act, adding an additional cue to ostension. The disconfirmation of expectations is not involved in the processing of a gestural point, but it is key to the interpretation of contrastive stress. A communicator could, of course, perform her pointing gesture in an exaggerated or unexpected manner, perhaps by repeating the pointing gesture with a stabbing motion, and this would act as an additional cue to ostension and trigger the search for extra effects.

Thus, contrastive stress in English performs a two-fold function. First, it is a cue to ostension which draws the hearer’s attention because it is unexpected. Second, it is a natural highlighting device, which, like gestural pointing, indicates to the addressee where he might expect to find relevance.

5. Contrastive stress and procedural meaning

In this final section, I will briefly consider how this account of contrastive stress fits within the broader relevance-theoretic pragmatic framework. As we have seen, contrastive stress not only acts as a cue to ostension; it also guides the hearer as to where he should look for the extra effects to justify his extra effort. As such, it seems to be performing a role that is very similar to that performed by those linguistic expressions which have been analysed within the relevance-theoretic pragmatic

framework as encoding procedural meaning. If speakers aim at optimal relevance, and relevance is a function of both cognitive effects and processing effort, then, as Wilson and Sperber (2012: 157) point out, linguistic constructions might be expected to encode both concepts and procedures. Conceptually encoded content (content words like *bicycle*, *orange*, *slowly*, etc.) contributes conceptual information to the proposition expressed by the utterance. Procedurally encoded meaning, on the other hand, guides the inferential tasks that the hearer must perform to reach the overall intended interpretation. These include reference assignment, and derivation of higher-level explicatures and implicatures. If procedural meaning contributes to relevance by guiding inferences, then we might expect to find procedural expressions associated with each of these different inferential processes. While it was initially conceived of to account for the sort of non-truth-conditional content that we find in discourse connectives such as *but* and *however* (Blakemore 1987; 2000; 2002; Iten 2005; Hall 2007), the notion of procedural meaning has been used in the analysis of a range of other encoded linguistic elements including discourse particles, mood indicators and pronouns. Furthermore, Wharton (2009) has argued that some other communicative devices including, for example, facial expressions, might encode not linguistic, but natural codes, and that, as such, they might also be considered procedural. Clark (2012; 2013) has proposed that tones in varieties of Southern British English encode procedures which guide the derivation of higher-level explicatures and implicatures. Finally, Wilson (2011: 20) suggests that languages have a “cluster of procedural items (e.g. punctuation, prosody and various types of discourse particle)... whose function is to guide the comprehension process in one direction or another”. How then does contrastive stress fit into the picture and does it encode a procedure?

In her discussion of referring expressions, Ariel (1990) analyses stressed and unstressed pronouns as markers which encode different levels of accessibility. This then guides the hearer as to where he should look to find the intended referent. In a later discussion (Ariel 2001), she explicitly calls this accessibility marking procedural. Another alternative is that contrastive stress functions as a natural code. If, as Wharton (2003: 59) puts it, procedures function by “activating certain types of representations” then perhaps contrastive stress really is no more than a vocal form of pointing. On this approach it would encode a procedure which instructs the hearer to add a layer of activation to the entity that is being pointed at.

I move away from encoded analyses of contrastive stress for one main reason. If stress encodes a procedure, either naturally or linguistically, then we would expect that procedure to be activated every time it is used. However, as we have seen, it is not stress per se, but unexpected stress, that highlights a contrast, and that triggers the search for extra effects. If a sentence is uttered with unmarked tonicity, then it is simply following what is expected given the prosodic rules of the language. As

such, the accented nuclear syllable will not draw the hearer's attention and does not put the hearer to any extra effort to process. No extra or different interpretative effects follow. However, as Wilson (2016) notes:

from the perspective of a theory of ostensive communication, where a public language is just one tool among many for getting the speaker's meaning across, we might reasonably expect languages to contain all sorts of devices which merely point the addressee in the right direction rather than providing a full concept as a starting point for inference. (Wilson 2016: 17)

If a communicator's primary aim is to convey an intended interpretation to her audience, then why should she not use any means at her disposal to do so, whether they be linguistic or natural, coded, or non-coded. I therefore follow Sax (2011: 377) in questioning "the assumption that anything which affects the procedures of comprehension must necessarily be taken to encode procedural meaning". Both Sax (2011) and Fretheim (2002) identify further cases where non-encoded aspects of intonation guide a hearer's inferential processes. In his discussion of inference and intonation in Norwegian, Fretheim (2002) suggests that:

Some linguistic devices have no conceptual meaning, nor do they encode a specific procedural instruction for the hearer to follow. Rather, they can be said to offer the hearer procedural information by virtue of their interaction with other kinds of linguistic devices in the utterance. (Fretheim 2002: 59)

Sax (2011) considers timing and sentence stress in English and concludes that:

aspects of relative timing which affect interpretive process but which do so via general processing mechanisms would be more accurately described as "having an impact on the procedures of comprehension" rather than as "encoding procedural meaning". (Sax 2011: 378)

Thus, my proposal here (following Scott 2017) is that contrastive stress does not function as either a linguistic or natural code, and, indeed, I suggest that it does not, in fact, encode anything. Encoded procedural meaning contributes to the comprehension process in two key ways. First, the encoded procedure plays a triggering role. As Wilson (2016: 11) explains, "the function of procedural expressions is to activate domain-specific procedures which may be exploited by inferential communication". Second, according to Carston (2016), the different types of procedural encoding share one unifying characteristic:

what they all do is constrain and guide pragmatic processes which are essential in deriving the intended interpretation (processes of reference assignment, identification of propositional attitude and/or speech act, and implicature derivation). Carston (2016: 159)

On the surface, contrastive stress appears to fulfil both of these roles. However, I suggest that only the second, guiding role can properly be attributed to the stress itself. The triggering, activation role comes, not from the prosody, but from the confounding of the hearer's expectations. The activation function that we would usually associate with an encoded procedure falls out naturally from the unexpected nature of contrastive stress and its role as a cue to ostension.

In summary, contrastive stress in English can be used by a speaker to guide her hearer to an intended interpretation. It draws the hearer's attention to a part of the utterance by use of an otherwise unexpected prosodic pattern. This simultaneously functions as a cue to ostension which triggers an expectation of relevance, and as a natural highlighting device to indicate where the hearer might expect to find that relevance. As such, it performs a similar role in the interpretation process as encoded procedural devices do. However, it does so not by encoding a procedure, but by exploiting general interpretative processes.

References

- Ariel, Mira. 1990. *Accessing Noun Phrase Antecedents*. London: Routledge.
- Ariel, Mira. 2001. "Accessibility Theory: An Overview." In *Text Representation: Linguistic and Psycholinguistic Aspects*, ed. by Ted J. Sanders, Joost Schliperoord, and Wilbert Spooren, 29–97. Amsterdam: John Benjamins. <https://doi.org/10.1075/hcp.8.04ari>
- Blakemore, Diane. 1987. *Semantic Constraints on Relevance*. Oxford: Blackwell.
- Blakemore, Diane. 2000. "Indicators and Procedures: *Nevertheless and but*." *Journal of Linguistics* 36: 463–486. <https://doi.org/10.1017/S0022226700008355>
- Blakemore, Diane. 2002. *Relevance and Linguistic Meaning: The Semantics and Pragmatics of Discourse Markers*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511486456>
- Carston, Robyn. 2002. *Thoughts and Utterances: The Pragmatics of Explicit Communication*. Oxford: Blackwell. <https://doi.org/10.1002/9780470754603>
- Clark, Billy. 2012. "The Relevance of Tones: Prosodic Meanings in Utterance Interpretation and in Relevance Theory." *The Linguistic Review* 29 (4): 643–661. <https://doi.org/10.1515/tlr-2012-0024>
- Clark, Billy. 2013. "Procedures and Prosody: Weak Encoding and Weak Communication." In *Beyond Words: Content, Context, and Inference*, ed. by Frank Liedtke, and Cornelia Schulze, 151–181. Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9781614512776.151>
- Clark, Billy. 2013. *Relevance Theory*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139034104>
- Fretheim, Thorstein. 2002. "Intonation as a Constraint on Inferential Processing." In *Proceedings of the Speech Prosody 2002 Conference, Aix-en-Provence, France*, ed. by Bernard Bell, and Isabelle Marlien, 59–64.
- Grice, H. Paul. 1989. *Studies in the Way of Words*. Cambridge, MA: Harvard University Press.

- Gussenhoven, Carlos. 2004. *The Phonology of Tone and Intonation*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511616983>
- Hall, Alison. 2007. "Do Discourse Markers Encode Concepts or Procedures?" *Lingua* 111 (1): 149–174. <https://doi.org/10.1016/j.lingua.2005.10.003>
- House, Jill. 2006. "Constructing a Context with Intonation." *Journal of Pragmatics* 38 (10): 1542–1558. <https://doi.org/10.1016/j.pragma.2005.07.005>
- Imai, Kunihiko. 1998. "Intonation and Relevance." In *Relevance Theory: Applications and Implications*, ed. by Robyn Carston, and Seiji Uchida, 69–86. Amsterdam: John Benjamins. <https://doi.org/10.1075/pbns.37.06ima>
- Iten, Corinne. 2005. *Linguistic Meaning, Truth Conditions and Relevance: The Case of Concessives*. Basingstoke: Palgrave. <https://doi.org/10.1057/9780230503236>
- Matsui, Tomoko. 2000. *Bridging and Relevance*. Amsterdam: John Benjamins. <https://doi.org/10.1075/pbns.76>
- Sax, Daniel J. 2011. "Sentence Stress and the Procedures of Comprehension." In *Procedural Meaning: Problems and Perspective*, ed. by Victoria Escandell-Vidal, Manuel Leonetti, and Aoife Ahern, 349–381. Bingley: Emerald. [https://doi.org/10.1108/S1472-7870\(2011\)0000025018](https://doi.org/10.1108/S1472-7870(2011)0000025018)
- Scott, Kate. 2017. "Prosody, Procedures and Pragmatics." In *Semantics and Pragmatics: Drawing a Line*, ed. by Ilse Depraetere, and Raphael Salkie, 323–341. Berlin: Springer. https://doi.org/10.1007/978-3-319-32247-6_18
- Scott, Kate. 2020. *Referring Expressions, Pragmatics and Style: Reference and Beyond*. Cambridge: Cambridge University Press.
- Scott, Kate, and Rebecca Jackson. 2020. "When Everything Stands Out, Nothing Does: Typography, Expectations and Procedures." In *Relevance Theory, Figuration and Continuity in Pragmatics*, ed. by Agnieszka Piskorska, 167–192. Amsterdam: John Benjamins. <https://doi.org/10.1075/ftl.8.06sco>
- Sperber, Dan and Deirdre Wilson. 1986/1995. *Relevance: Communication and Cognition*. 2nd ed. Oxford: Blackwell.
- Wells, John C. 2006. *English Intonation: An Introduction*. Cambridge: Cambridge University Press.
- Wharton, Tim. 2003. "Interjections, Language, and the Showing/Saying Continuum." *Pragmatics and Cognition* 11 (1): 39–91. <https://doi.org/10.1075/pc.11.1.04wha>
- Wharton, Tim. 2009. *Pragmatics and Non-verbal Communication*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511635649>
- Wilson, Deirdre. 2011. "The Conceptual-Procedural Distinction: Past, Present and Future." In *Procedural Meaning: Problems and Perspective*, ed. by Victoria Escandell-Vidal, Manuel Leonetti, and Aoife Ahern, 3–31. Bingley: Emerald. [https://doi.org/10.1108/S1472-7870\(2011\)0000025005](https://doi.org/10.1108/S1472-7870(2011)0000025005)
- Wilson, Deirdre. 2016. "Reassessing the Conceptual-Procedural Distinction." *Lingua* 175 (6): 5–19. <https://doi.org/10.1016/j.lingua.2015.12.005>
- Wilson, Deirdre, and Robyn Carston. 2019. "Pragmatics and the Challenge of 'Non-propositional Effects.'" *Journal of Pragmatics* 145: 31–38. <https://doi.org/10.1016/j.pragma.2019.01.005>
- Wilson, Deirdre, and Dan Sperber. 2012. *Meaning and Relevance*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139028370>
- Wilson, Deirdre, and Tim Wharton. 2006. "Relevance and Prosody." *Journal of Pragmatics* 38 (10): 1559–1579. <https://doi.org/10.1016/j.pragma.2005.04.012>

Presupposition effects

Beyond and within speaker's meaning

Misha-Laura Müller

University of Neuchâtel

This paper focuses on presupposition effects, in the light of Sperber and Wilson (2015). First, we define semantic presuppositions as determinate contents, which can in turn be instances of meaning or/and showing. A discussion is then engaged regarding the determinacy of semantic and discursive presuppositions, leading to the identification of a specific property of presuppositions, namely their contribution to the acceptance of an utterance (*as per* Sperber et al. 2010). The last section seeks to account for the ambivalent status of presuppositions, as they are both ostensive (i.e. triggered by an ostensive verbal stimulus) and relatively less ostensive. We conclude that a proper identification of presuppositions requires to go 'within' the speaker's meaning, by adding an 'ostensive' and 'less ostensive' continuum to the showing – meaning diagram.

Keywords: presupposition effects, implicated premises, comprehension vs acceptance, less ostensive meanings, processing background information

1. Introduction

In *Beyond Speaker's Meaning*, Sperber and Wilson (2015) take stock of the history of Gricean pragmatics. They emphasize that the field essentially remained within the study of meaning_{NN} (Grice 1957, 1975), which applies exclusively to indirect evidence provided by a speaker. The Gricean definition of meaning_{NN} implies that any communicative act providing *direct* evidence for the speaker's intended meaning falls out of the scope of pragmatic investigations. This delineation of pragmatic investigations was famously exemplified by Grice's distinction between acts of "showing" (1) and acts of "meaning_{NN}" (2):

- (1) I *show* Mr. X a *photograph* of Mr. Y displaying undue familiarity to Mrs. X.
- (2) I *draw a picture* of Mr. Y behaving in this manner and show it to Mr. X.

(Grice 1957: 218)

While both examples involve a speaker having a specific communicative intention (i.e. that the listener – Mr. X – believes that his wife is having an affair with Mr. Y), Grice considered only the second example to be an instance of meaning_{NN}. The reason is that (2) necessitates the recovery of two layers of intentions to be properly understood, whereas (1) does not, because it provides direct evidence of the speaker’s intention.

According to Sperber and Wilson, restricting pragmatics to the study of meaning_{NN} excludes a significant number of communicative acts which ought to be considered in a theory of ostensive-inferential communication. They argue that acts of “showing” and “meaning” form a continuum that are both compatible with the relevance-guided comprehension heuristic.

In pure cases of meaning, as in an ordinary linguistic assertion, all the evidence that P is provided by the communicator’s giving overt evidence of her intention that the addressee should believe that P [...]. But of course, *the evidence can come both from whatever is displayed (either shown or uttered)* and from what the communicator’s communicative behaviour indicates of her intention [...]. (Sperber and Wilson 2015: 119, *my emphasis*)

Aside from the “showing – meaning” continuum, they argue against the view that communication is limited to determinate and truth-evaluable propositions, which would in turn be duplicated from mind to mind. This point is best exemplified by poetic metaphors which convey ‘arrays of propositions’ that are not paraphrasable without loss, a fact which makes them ‘non-propositional’. Thus, poetic metaphors convey meanings that are ‘indeterminate’. The criteria provided to characterize indeterminate effects are the following:

- different audiences paraphrase them in rather different ways;
 - no finite paraphrase captures all their nuances;
 - they are often described as ‘open-ended’;
 - they typically involve the activation of perceptual, emotional or sensorimotor mechanisms.
- (Wilson and Carston 2019: 32)

Importantly, the array of propositions that are communicated by poetic metaphors are not equally salient and, therefore, are not all expected to arise with equal strength in the listener’s cognitive environment. Under this view, the speaker does not have an intended meaning_{NN} but rather an intended “import”, to the extent that it involves a continuum of determinate and indeterminate effects. The effects can create “impressions”, in the sense that they activate perceptual, emotional and sensorimotor mechanisms (Wilson and Carston 2019: 31).

The two continua combined depict the possible imports of ostensive-inferential communication (see Figure 1). As underlined above, most of pragmatic investigations

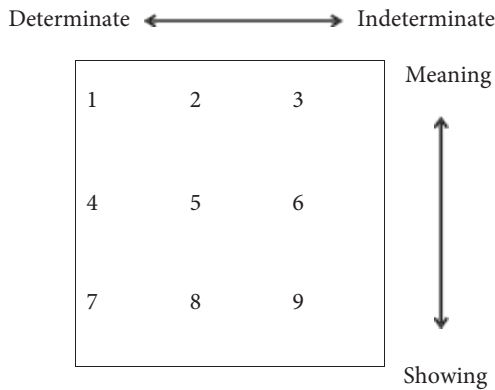


Figure 1. Sperber and Wilson’s (2015) “showing – meaning” diagram.

have focused on Gricean meaning_{NN}, which corresponds to a minute portion of the diagram (cf. vicinity of 1). In order to fill the gaps, Sperber and Wilson present a new research agenda which consists in exploring types of meanings that go *beyond* the Gricean construal of meaning_{NN}.

This paper develops the discussion further in order to account for presupposition effects. In section 2.1, I argue that semantic presuppositions convey determinate meanings that can be situated within the showing – meaning continuum. In section 2.2., I show that a broad construal of presuppositions – which includes semantic presuppositions, implicated premises and discursive presuppositions – allows to situate their effects within the determinate – indeterminate continuum. Because discursive presuppositions tend to be considered as mere implicated premises, I present in section 2.3. two criteria that distinguish these two types of contents: the first criterion relates to their level of determinacy and the second relates to their contribution either to the comprehension or the acceptance of an utterance (as per Sperber et al. 2010).

Section 3.1 presents Sperber and Wilson’s (1995) initial account of presupposition effects, which adopts the listener’s perspective. In Section 3.2., I come back to Sperber and Wilson’s (2015) *Beyond Speaker’s Meaning* and argue that the diagram, which presents communication from the speaker’s perspective, is not sufficient to account for presupposition effects. Two arguments are presented to support this claim: first, the background knowledge triggered by presuppositions impose specific conversational constraints, such as not being able to be addressed or challenged without initiating a conversational breakdown. Such constraints reveal to what extent presuppositions are backgrounded. Second, presupposition effects correlate with consistent epistemic errors, as attested by the cognitive psychological literature

(cf. Bredart and Modolo 1988; Loftus and Zanni 1974, *inter alia*). The systematic errors found with presupposition effects suggest that they are less accessible for the addressee than asserted contents. These two arguments lend support to a view in which we see presupposition effects as being conveyed in a less ostensive manner. In order to account for this phenomenon, I propose to add a continuum of ostensive and less ostensive meanings to the showing-meaning diagram.

2. Determinate and indeterminate presupposition effects

Presupposition effects can be situated within the determinate – indeterminate continuum, as per Sperber and Wilson (2015: 123). On one end of the continuum stand semantic presuppositions and on the other end ‘discursive’ presuppositions (de Saussure 2013, Müller 2018). Discursive presuppositions are defined as weak implicatures that serve as preconditions to the relevance of an utterance (de Saussure 2013: 179). The following example allows to distinguish the two types of presuppositions that will be considered in this paper:

(3) Context: *Mary leaving the house. She utters (3) to Peter who is still in bed:*

Mary: I took the umbrella.

- a. There is one specific (or only one) umbrella at home.
(semantic presupposition)
- b. There is no more umbrella at home. (implicature)
- c. It is raining/it might rain outside. (discursive presupposition)

(adapted from Marmaridou 2000: 123 and de Saussure 2013: 183)¹

In this context, Mary utters (3) with the intention to inform Peter that there will be no more umbrellas at home (3b). This latter content is a typical determinate meaning, overtly intended by the speaker. Furthermore, Mary’s utterance conveys additional information which is not directly related to an overtly intended import: for instance, the definite article (i.e. “the” umbrella) informs Peter that there exists one specific – perhaps only one – umbrella at home (3a). This proposition serves as an implicated premise allowing to derive the implicature (3b). Finally, when Mary utters (3), she takes for granted that “it is raining or it might rain outside” (3c). This content is a discursive presupposition, as it formally corresponds to an implicature (i.e. it is cancellable) but it pragmatically contributes to the relevance of the speaker’s utterance. In other words, the fact that it is raining/could rain is a relevance establisher for utterance (3). To the extent that semantic and discursive presuppositions present themselves as relating to the conversational background,

1. I am grateful to Louis de Saussure for sharing this example with me in this specific form.

they both convey presupposition effects.² The question addressed in this paper is whether they can effectively be situated within Sperber and Wilson's (2015) diagram.

2.1 Semantic presuppositions as determinate contents

Semantic presuppositions are triggered by specific lexical items or syntactic structures, such as factive verbs (4), aspectual verbs (5), definite pronouns (6), iterative particles (7), cleft sentences (8). These linguistic devices convey determinate contents, which are presented as background information:

- (4) John *knew/forgot/regrets* that Mary had an affair.
←³ Mary had an affair.
- (5) Paul *quit* smoking.
← Paul used to smoke.
- (6) I took *the* umbrella.
← There exists one specific umbrella [at home, in the room, etc.].
- (7) Make America Great *Again*.
← America used to be great and is no longer great.
- (8) *It is* Mary who took the last piece of cake!
← Someone took the last piece of cake.

Aside from lexical and syntactic triggers, contrastive stress patterns have been listed as an essential presupposition trigger, capable to “override syntactic or lexical effects” (Wilson and Sperber, 1979: 310–317). Compare (9a) with (9b), which trigger distinct presuppositions:

- (9) a. YOU'VE eaten all my apples.
← Someone's eaten my apples. (Wilson and Sperber, 1979: 317)
- b. You've eaten all my APPLES.
← You've eaten something. (Wilson and Sperber, 1979: 316)

Importantly, the presuppositions triggered by (4)–(8) are inherently different from the ones triggered by (9a)–(9b). In the former situation, the presupposition effects undeniably correspond to determinate meanings_{NN} (vicinity of 1, cf. Figure 1 above). However, the presuppositions triggered by contrastive stress are akin to acts of pointing. According to Sperber and Wilson (1995: 203–213), both contrastive

2. Furthermore, semantic and discursive presuppositions exhibit identical discursive constraints, and they both are relatively more difficult to consciously process (cf. § 3.2).

3. The left-directed arrow “←” stands for presupposition effects.

stress and pointing correspond to a “natural highlighting device.”⁴ In this perspective, the presupposition effects of (9a)–(9b) should be situated on the vicinity of 7, namely as “determinate showing” (see also Wilson and Wharton 2006 for a detailed discussion on prosody and relevance). Let us note that intermediary cases are possible, where semantic presuppositions both correspond to acts of showing and meaning, as exemplified below:

- (11) *PAUL quit smoking.*
 ← Someone quit smoking (triggered by the stress pattern “PAUL”).
 ← Someone used to smoke (triggered by the stress pattern and the verb).
 ← Paul used to smoke (triggered by the aspectual verb).

In the above example, the proposition “someone used to smoke” would be an intermediate case on the showing – meaning continuum (vicinity of 4), because it is triggered by contrastive stress (i.e. act of showing) as well as by the aspectual verb (i.e. act of meaning).

Regarding whether semantic presuppositions are always determinate contents, one could argue that it is not the case, as they can allow the conveyance of indeterminate meanings. In French, for instance, the use of a definite article in front of a proper noun can convey arrays of propositions:

- (10) a. *Someone knocking on the door*
 Ça doit être Margaux.
 ‘It must be Margaux.’
 b. *Someone knocking on the door*
 Ça doit être *la* Margaux.
 ‘It must be *the* Margaux.’

While both (10a) and (10b) presuppose the existence of a person called Margaux, only (10b) conveys an attitudinal effect that is not really determinate. In fact, (10b) allows the speaker to communicate an array of propositions which cannot be paraphrased without loss, as illustrated below:

- (10b) Ça doit être *la* Margaux.
 ‘It must be *the* Margaux.’
 – There exists a person called Margaux.

4. The parallel between contrastive stress and pointing is made explicit in the following quote: “The fact that contrastive stress is a natural highlighting device need not prevent it from being more costly to use in some circumstances than in others, just as pointing, another natural highlighting device, may have greater social costs attached to it in some circumstances than in others.” (Sperber and Wilson 1995: 213).

- There exists only one salient person called Margaux.
- There is no one else like Margaux.
- Everyone knows Margaux.
- Margaux is such an idiosyncratic character!
- I appreciate Margaux.
- I have condescending feelings for Margaux
[...]

However, as this kind of use departs from expected syntax, it should be analysed as an ostensive stylistic effect. Inasmuch as ostension is antithetical with presupposition effects (because presuppositions relate to the conversational background), this type of use will not be considered as a presupposition effect *per se*. Thus, leaving aside stylistic effects of this type, semantic presuppositions will be defined as determinate contents on the showing – meaning continuum.

2.2 Discursive presuppositions as indeterminate meanings

Discursive presuppositions correspond to weak implicatures serving as relevance establishers (de Saussure 2013: 180). As we will see later, they can be distinguished from semantic presuppositions because they are pragmatically triggered, and they correspond to indeterminate meanings. Therefore, discursive presuppositions should be situated at the other end of the determinate – indeterminate continuum.

Some scholars have argued that discursive presuppositions merely correspond to implicated premises (Simons 2005; Mazzarella and Domaneschi 2018), allowing to derive the speaker’s intended meaning, i.e. the implicature. Let us note that implicated premisses are tacitly defined as determinate meanings, as exemplified in utterance (11):

- (11) A: Smith doesn’t seem to have a girlfriend these days.
 B: He has been paying a lot of visits to NY recently.
 ← Having a girlfriend in NY is a reason to travel often to NY.
 Implicature: Smith might have a girlfriend in NY
 (Simons 2005: 329; Mazzarella and Domaneschi 2018: 19)

In the above example, the implicated premise “having a girlfriend in New York is a reason to travel often to New York” establishes the relevance of B’s utterance. Furthermore, this content serves as a premise to derive the speaker’s intended meaning, namely the implicature that “Smith might have a girlfriend in New York”. According to this view, semantic presuppositions and discursive presuppositions both correspond to determinate meanings. In other words, they would not be distinguishable within the determinate – indeterminate continuum.

In the remainder of this section, I argue that discursive presuppositions can be distinguished from implicated premises. First, unlike implicated premises, discursive presuppositions do not correspond to determinate meanings. Second, discursive presuppositions do not *necessarily* function as implicated premises. To illustrate these points, consider example (12), taken from de Saussure (2013), where the yes/no question triggers an array of propositions that serve as preconditions for the relevance of the initial question:

(12) “Do you accept the vote proposal to ban the construction of minarets?”

Discursive presuppositions:

- a. There is a relevant number of minarets actually in place or projected.
- b. Minarets could modify Swiss landscapes.
- c. Minarets are a threat of some type.

[...]

(de Saussure, 2016: 187)

In this case, the recovery of the intended import does not necessitate the derivation of an implicature. Thus, the above example does not involve any implicated premise. Nonetheless, the vote proposal does trigger some inferences contributing to the relevance of the utterance. Suppose, for instance, that the listener does not know what a minaret is. In spite of this, she is likely to infer arrays of propositions in order to make it relevant. For instance, the vote proposal may activate the belief that: (12a) there exists a relevant number of minarets in place or projected to be built, (12b) minarets could significantly modify Swiss landscapes, (12c) minarets constitute a threat of some type, and so on. Importantly, if the discursive presuppositions were to be removed, the listener would not accept the proposition as being legitimate for a popular vote.⁵

However, there are cases where the distinction between discursive presuppositions and implicated premises is difficult to draw. Compare, the vote proposal on minarets with the utterance (13) below, which appeared in Swiss shops shortly after a specific type of cannabis had been legalized:

(13) Here we sell legal cannabis.

- a. There exists cannabis which is not legal.
- b. Some people/shops sell illegal cannabis.
- c. It is not good to sell illegal cannabis.
- d. We respect the law.
- e. If you buy cannabis here, you will not get into trouble.

[...]

Implicature: *Buy cannabis here, and not elsewhere!*

5. See discussion below (§ 2.3), on the distinction between utterance comprehension and acceptance (Sperber et al. 2010).

Utterance (13) can be analysed on a communicative level, as a mere attempt to inform an audience that “legal cannabis can be bought in this place”. But it can also be analysed on an argumentative level, leading to the conclusion that “cannabis should be bought *only* in this place and not elsewhere” (implicature). The reasons (or premises) that lead to this conclusion are all implicit and can approximately be paraphrased with the propositions (13a)–(13e). However, the implicature that “cannabis should be bought *only* in this place and not elsewhere” does not logically follow from the implicit premises. In other words, the implicature in (13) is distinct from a deductive reasoning, as it is the case in (11). Thus, in this case, the relationship between the implicature and the inferred premises is compatible only with a broad definition of inference (*as per* Mercier and Sperber 2017), which does not necessarily involve “step by step derivations of explicit conclusions from explicit premises” (Sperber and Wilson 2015: 137).

In summary, the weak implicatures triggered by (13) constitute a hybrid category – between implicated premises and discursive presuppositions – to the extent that they contribute to the derivation of an implicature while remaining highly backgrounded and indeterminate.

2.3 Two criteria to distinguish discursive presuppositions from implicated premises

As presented in the previous section, the boundary between implicated premises and discursive presuppositions is sometimes challenging to distinctively draw. Nevertheless, they can be singled out by means of two criteria:

Criterion One: level of determinacy.

Implicated premises are fully determinate, whereas discursive presuppositions correspond to arrays of propositions;

Criterion Two: comprehension vs acceptance of an utterance.

Implicated premises contribute to the comprehension of an utterance (as they allow to derive an intended implicature), while discursive presuppositions contribute to the acceptance of an utterance, because their primary function is to serve as relevance establisher.

Regarding Criterion One, we have seen earlier that implicated premises are fully determinate propositions that allow to derive a warranted conclusion, namely an implicature (Section § 2.2). They should be distinguished from discursive presuppositions, which convey *arrays of propositions* that contribute to the relevance of a given utterance. The distinct levels of determinacy of these two categories was exemplified by the contrast between an utterance triggering a deductive inference

with determinate propositions (cf. (11) “*B: He has been paying a lot of visits to NY recently.*”) and a vote proposal that did not trigger an implicature but rather an array of propositions legitimizing the relevance of the utterance (cf. (12) “Do you accept the vote proposal to ban the construction of minarets?”).

Criterion Two refers to Sperber et al. ‘s (2010) distinction between the *comprehension* and the *acceptance* of an utterance. This one relates to the human ability to first adopt a stance of trust (to comprehend utterances) before filtering the information through their epistemic vigilance module, to eventually accept the utterance. This ability would have evolved to meet our ancestors’ needs, namely keeping the benefits of verbal communication, and reducing the risks of manipulation (Sperber et al. 2010: 368).

When considering this distinction, implicated premises appear as contributing to the comprehension of an utterance, to the extent that they serve as premises allowing to derive the speaker’s intended meaning. In other words, implicated premises allow the listener to adequately derive the intended implicature. On the other hand, discursive presuppositions would contribute to the acceptance of an utterance, inasmuch as they serve as relevance establishers without which an utterance would not be considered as worth processing. Importantly, discursive presuppositions arise regardless of whether an implicature is derived. If we look back at the example on minarets (12), there is a clear distinction between the comprehension of the question requiring a yes/no answer and, on the other hand, the acceptance of the proposition as a legitimate object for a vote (namely, accepting that minarets could be dangerous, or that minarets could modify swiss landscapes, and so on). It should be noted that the acceptance of the vote proposition is conditioned by the acceptance of the discursive presuppositions. Otherwise, the vote proposition would not be considered as worth processing.

Interestingly, with respect to the contribution to the acceptance of an utterance, it appears that semantic presuppositions exhibit similar behaviours as discursive presuppositions. Indeed, a disagreement regarding the truth of a semantic presupposition does not affect the comprehension of a sentence, but rather its relevance. This can be seen in the context of a disagreement regarding the truth of the presupposed content: in such cases, the legitimacy of the utterance will not be accepted as such, often leading to a conversational breakdown. Consider utterance (14), which is perfectly understandable on an abstract level, but whose legitimacy requires that the presupposition is considered as true. If the presupposition had to be challenged, the validity of the entire utterance would be questioned:

- (14) *Context: America has always been great.*
 ? Make America Great Again.
 ← ? America used to be great but is no longer great.

Thus, as illustrated above, a context that is incompatible with a presupposition (“America has always been great” vs “America is no longer great”) challenges the relevance of the initial utterance (“Make America great again”).

In light of the above, semantic and discursive presuppositions appear to be closer than one would have expected: they both relate to the acceptance of an utterance, rather than its comprehension. If this is true, a boundary should be drawn between semantic and discursive presuppositions on the one hand and implicated premises on the other.

To summarize, presupposition effects can be situated within the determinate – indeterminate continuum. Semantic presuppositions correspond to determinate meanings, which can in turn be situated within the showing – meaning continuum. It is possible to distinguish implicated premises from discursive presuppositions on the basis of two criteria, namely their determinacy and their contribution to the comprehension or the acceptance of an utterance. While implicated premises appear to be fully determinate, discursive presuppositions correspond to arrays of propositions (i.e. they are indeterminate). Beyond the criterion of determinacy, implicated premises are characterized by their contribution to the comprehension of an utterance, as opposed to semantic and discursive presuppositions that contribute to the acceptance of an utterance. However, some examples remain difficult to analyse with the above-mentioned criteria: in some cases, discursive presuppositions can be considered as implicated premises, to the extent that an array of background assumptions contribute to the derivation of an implicature. Such examples appear to be challenging, as it is not clear whether the inferred meanings contribute to the comprehension or/and to the acceptance of the utterance.

In the next section, I argue that the determinate – indeterminate continuum is not sufficient to account for presupposition effects. In order to account for such effects, it seems necessary to add a third dimension to Sperber and Wilson’s (2015) diagram, namely a continuum of “ostensive and less ostensive” meanings.

3. The ostensive and less ostensive continuum

3.1 Presupposition effects and the relevance comprehension heuristic

Sperber and Wilson (1986/95) define presupposition effects as background assumptions which contribute to relevance by allowing to save cognitive effort. They illustrate such effects with the following example:

- (15) a. Bill’s twin sister lives in Berlin
 b. Bill has a twin sister who lives in Berlin (Sperber and Wilson 1987: 706)

While (15a) presupposes the fact that Bill has a twin sister, (15b) asserts it. Sperber and Wilson stress that while both sentences share the same truth-conditions, (15b) puts into focal scale the fact that Bill has a twin sister, while (15a) does not. They explain the specificity of presuppositional effects by distinguishing the notion of *foreground* and *background* implications. The first ones contribute to relevance by providing additional cognitive effects, whereas the latter contribute to relevance by saving efforts (Sperber and Wilson 1987: 706). In (15a), the fact that Bill has a twin sister is not the point of the discussion and, therefore, stands last in the order of accessibility of the relevance-guided comprehension heuristic.⁶ The fact that it is backgrounded allows to spare cognitive efforts on an issue that is not crucial for a given discussion.

It should be underlined that the perspective adopted in Sperber and Wilson's (1995) seminal book is not the same as the one adopted in their paper *Beyond Speaker's Meaning* (2015). In the first case, they present a cognitive inferential account of communication from the listener's perspective, whereas, in the latter case, they provide a typology of communicative acts and effects from the speaker's perspective. That is to say, the diagram in Figure 1 represents different types of communicative acts or stimuli provided by the speaker, to which the listener will apply the relevance comprehension heuristic. Thus, the goal of this section is to show that while presupposition effects can fully be accounted by the relevance guided comprehension heuristic, it seems difficult to situate them within the diagram presented in *Beyond Speaker's Meaning* (2015). The reason why presuppositions do not adequately fit in the diagram is due the fact that it is restricted to the speaker's "intended" communicative import. This point is made explicit in the comment below:

[...] As a result of the communicator's behaviour, the addressee may experience a change in his cognitive environment, and identify this change, or part of it, as something *the communicator intended to cause in him and to have him recognize as what she intended to communicate.*

(Sperber and Wilson 2015: 140, my emphasis)

Thus, presuppositions do not seem to fit in Sperber and Wilson's diagram, because they are not inherently part of what the speaker wants the listener to recognize. In the next section, two arguments are presented in favour of the view that presuppositions are less ostensive than asserted contents and strong implicatures, while still being part of the speaker's meaning.

6. In an earlier paper, Wilson and Sperber (1979) argue that presuppositions are in fact lower entailments, i.e. entailments that are pragmatically less salient for the addressee.

3.2 Presupposition effects as less ostensive meanings

There are two main reasons to consider presuppositions as relatively less ostensive than asserted contents or strong implicatures. The first one relates to the fact that both semantic and discursive presuppositions cannot directly be addressed without a conversational breakdown (*cf.* Roberts 1996: 119–130; de Saussure 2013: 184). According to von Stechow (2004), presuppositions require a specific allocation to be addressed, best known as the “Hey, wait a minute” test, as illustrated below with the challenge of semantic presuppositions (16) or discursive presuppositions (17) :

- (16) A: Did *the* regime attack the civilians with chemical weapons *again*?
 B: Hey, wait a minute! What regime are you talking about? I didn't know some civilians had been attacked with chemical weapons in the first place!
 (Müller 2018: 10)
- (17) A: Are women as clever as men?
 B: Hey, wait a minute! Are there reasons to believe that women are less clever than men?
 (Müller 2018: 10)

In utterance (16), the addressee challenges the two semantic presuppositions conveyed by speaker A, namely that there exists one salient regime and that this regime has attacked the civilians (of this regime) with chemical weapons. Despite the fact that the meaning of the utterance is understood, it cannot be answered before agreeing upon what the definite description refers to (i.e. what regime?) and before agreeing about the truth of the presupposition triggered by the iterative “again”. The challenge of the presuppositions implies a conversational breakdown, because it addresses the conversational background. A comparable problem is found when a disagreement arises regarding the truth of a discursive presupposition: in (17), speaker A's utterance triggers the discursive presupposition that there are reasons to believe that women are/could be less clever than me. Without this content, there would be no reason to ask if “women are as clever as men”. As we can see, a challenge of the discursive presuppositions also implies a conversational breakdown, because it addresses the conversational background.

The second reason to consider presuppositions as less ostensive meanings relates to the fact that they often correlate with epistemic errors. Importantly, such errors do not persist when the critical content is put into focal scale. In this regard, Bredart and Modolo (1988) have shown that the so-called *Moses Illusion* is significantly less efficient when the error stands in the cleft phrase (18) than when it is not focalized (19), suggesting that a proposition conveyed within a single utterance can be more or less accessible for the addressee:

- (18) It is Moses who took two animals of each kind on the Ark.
 (19) It is two animals that Moses took on the Ark.

Importantly, the fact that presupposition effects are less accessible does not imply that they do not have an epistemic effect. For instance, Loftus and Zanni (1974) have shown that definite articles (which give rise to a presupposition condition), in contrast with indefinite articles (which do not), have a significant impact on the memory reconstruction of a given event. In their experiment, participants were invited in a first phase to visualize a video with a car driving in a city. In a second phase, they had to answer a questionnaire which comprehended either a definite article as in (20) or an indefinite article as in (21). The question containing the definite article (20) involved more “recognition” of an event that, in fact, never occurred.

(20) Did you see *the* broken light?

(21) Did you see *a* broken light?

Considering the above – i.e. the conversational breakdowns when challenging presuppositions and the correlation of presuppositions with epistemic inconsistencies – presupposition effects can arguably be situated within a continuum of “ostensive and less ostensive meanings”, as illustrated in Figure 2 below:⁷

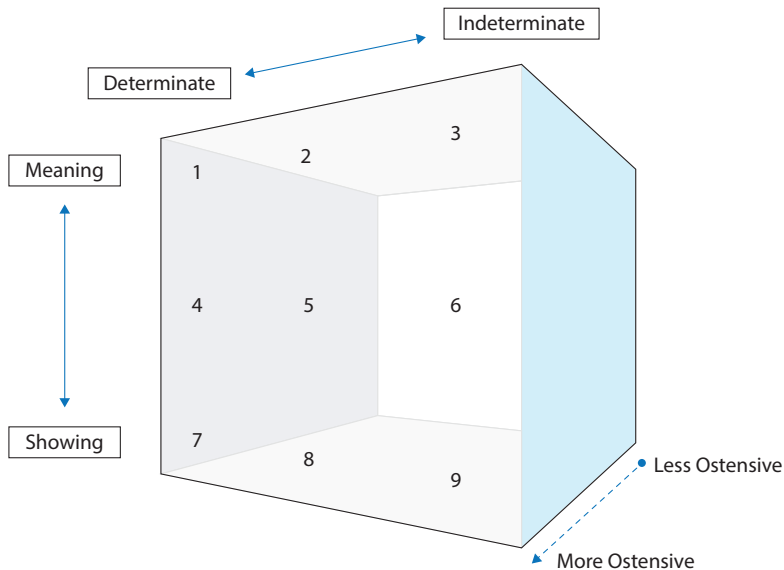


Figure 2. The third dimension of ostensive and less ostensive meanings (Wharton 2017)

7. The addition of a third dimension to the showing-meaning diagram was initially presented to me by Tim Wharton in the context of a workshop (“Pragmatics Next”, 13th of March 2017, University of Fribourg).

At the end of their paper, Sperber and Wilson (2015: 126) discuss the types of beliefs that are involved in verbal communication. They argue that ostensive-inferential communication involves much more than the intention to induce an ‘activated belief’, as initially proposed by Grice (1989: 109). They discuss three categories of beliefs, namely ‘activated beliefs’ (in working memory), ‘inactive beliefs’ (in long term memory) and ‘not mentally represented beliefs’ (equivalent to a disposition to believe). These distinctions, which are presented below, are provided by literature in philosophical psychology:

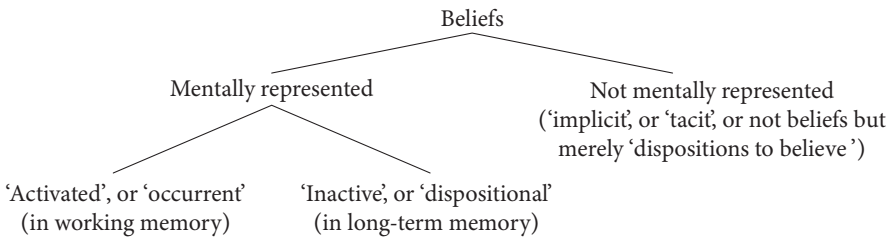


Figure 3. the three categories of beliefs in philosophical psychology (Sperber and Wilson 2015: 129)

According to Sperber and Wilson, the above categories do not adequately cover the types of beliefs involved in communication. They claim that the above typology lacks the notion of salience, inasmuch as activated beliefs can be more or less accessible for an addressee: “[activated] beliefs are not all equally manifest. In the first place, they are not all equally salient” (Sperber and Wilson 2015: 135).

The discussion regarding the types of beliefs involved in communication seeks to account for indeterminate meanings (poetic effects, in particular), situated in the determinate – indeterminate continuum. Let us note that the problem of salience in “activated beliefs” also applies to presupposition effects: for instance, when looking at Loftus and Zanni’s experiment on memory reconstruction, the belief that there was indeed a broken light, triggered by the definite article, does not belong to either three categories presented above: firstly, the memory cannot belong to a “not mentally represented” category, as there is a mental representation made explicit by the participants. Secondly, the reconstructed memory does not belong to long-term memory, since the participants were never exposed to this stimulus before taking the experiment. Finally, the belief cannot be considered as genuinely “activated”, inasmuch as the listener does not consciously control the effects triggered by the article, be it definite or indefinite.

Thus, presupposition effects are perfect examples to highlight the limits of the above presented typology of beliefs. However, as it was argued earlier, presuppositions cannot fully be accounted by the determinate – indeterminate continuum.

Indeed, even determinate presuppositions (i.e. semantic presuppositions) can be relatively less salient for an addressee, because they are not overtly presented as part of the speaker's intended meaning. Thus, in this perspective, the addition of an "ostensive and less ostensive" continuum in Sperber and Wilson's (2015) diagram seems to be a promising option.

To conclude, presupposition effects can fully be explained by the relevance guided-comprehension heuristic. However, when adopting the speaker's perspective, presupposition effects call for a third dimension in the showing – meaning diagram, namely a continuum of degrees of ostensiveness. Two arguments were presented in favour of the view that presuppositions are less ostensive: first, they cannot be challenged without a conversational breakdown. Second, presupposition effects correlate with systematic errors, suggesting that they are not equally salient for the addressee (relatively to asserted contents and strong implicatures). This latter point calls into question the three categories of beliefs provided by literature in philosophical psychology (Figure 3). A way to remedy to this problem is to add a third dimension to Sperber and Wilson's diagram, namely a continuum of ostensive and less ostensive meanings.

4. Conclusion

This paper sought to account for presupposition effects in the light of Sperber and Wilson's (2015) *Beyond Speaker's Meaning*. Presupposition effects were first situated within the determinate – indeterminate continuum, with semantic presuppositions on one end and discursive presuppositions on the other. We saw how semantic presuppositions can be situated within the showing – meaning continuum, with the use of contrastive stress patterns. In a second stage, a distinction was drawn between implicated premises and discursive presuppositions on the basis of two criteria, namely the determinacy of the proposition and the contribution either to the comprehension or the acceptance of an utterance. Regarding the first criterion, we have seen that implicated premises are fully determinate, whereas discursive presuppositions are indeterminate. Regarding the second criterion, it appeared that implicated premises contribute to the comprehension of an utterance, whereas discursive presuppositions contribute to its acceptance. The contribution to the acceptance of an utterance revealed itself as a key property of presupposition effects, to the extent that it is shared by both semantic and discursive presuppositions.

The last part of the paper was dedicated to a discussion regarding whether presupposition effects are compatible with Sperber and Wilson's (2015) diagram. Two arguments were presented in favour of the view that presupposition effects do not fit in the diagram : first, presuppositions cannot be challenged without a

conversational breakdown. The conversational breakdowns that occur when a presupposition is challenged are due to the fact that they are backgrounded. Second, presupposition effects are responsible for significant epistemic errors, as attested in the experimental psychology literature (*cf.* Moses Illusion, Loftus and Zanni's experiment on memory reconstruction). This type of data lends support to the view that presupposition effects are more difficult to process because they are conveyed in a less ostensive manner. Despite the fact that presuppositions do not strictly belong to the speaker's "intended import", presuppositions are paradoxically still able to induce epistemic effects. Therefore, presuppositions can be considered as belonging to the speaker's meaning. However, their identification requires going *within* the speaker's meaning, to reach contents that were conveyed in a less ostensive manner.

References

- Bredart, Serge, and Karin Modolo. 1988. "Moses Strikes Again: Focalization Effect on a Semantic Illusion." *Acta Psychologica* 67 (2): 135-144. [https://doi.org/10.1016/0001-6918\(88\)90009-1](https://doi.org/10.1016/0001-6918(88)90009-1)
- Domaneschi, Filippo, and Simona Di Paola. 2018. "The Processing Costs of Presupposition Accommodation." *Journal of Psycholinguistic Research* 47 (3): 483-503. <https://doi.org/10.1007/s10936-017-9534-7>
- Grice, H. Paul. 1957. "Meaning." *The Philosophical Review* 66 (3): 377-388. <https://doi.org/10.2307/2182440>
- Grice, H. Paul. 1975. "Logic and Conversation." In *Speech Acts*, ed. by P. Cole, and J. Morgan, 41-58. Vol. 3 of *Syntax and Semantics*. New York: Academic Press.
- Grice, H. Paul. 1989. *Studies in the Way of Words*. Cambridge, MA: Harvard University Press.
- Marmaridou, Sophia. 2000. *Pragmatic Meaning and Cognition*. Vol. 72. Amsterdam: John Benjamins Publishing. <https://doi.org/10.1075/pbns.72>
- Mazzarella, Diana, and Filippo Domaneschi. 2018. "Presuppositional Effects and Ostensive-Inferential Communication." *Journal of Pragmatics* 138: 17-29. <https://doi.org/10.1016/j.pragma.2018.09.012>
- Mercier Hugo, and Dan Sperber. 2017. *The Enigma of Reason*. Cambridge, MA: Harvard University Press; Harmondsworth: Penguin Books. <https://doi.org/10.4159/9780674977860>
- Müller, Misha-Laura. 2018. "Accommodation: A Cognitive Heuristic for Background Information." *Anglophonia: French Journal of English Linguistics*, (25). <https://doi.org/10.4000/anglophonia.1491>
- Park, Heekyeong, and Lynne M. Reder. 2004. "Moses Illusion: Implication for Human Cognition." In *Cognitive Illusions: A Handbook on Fallacies and Biases in Thinking, Judgement and Memory*, ed. by Rüdiger Pohl, 275-291. Psychology Press.
- Roberts, Craige. 1996. "Information Structure in Discourse: Towards an Integrated Formal Theory of Pragmatics." In *Working Papers in Linguistics-Ohio State University Department of Linguistics*, 91-136.
- de Saussure, Louis. 2013. "Background Relevance." *Journal of Pragmatics* 59: 178-189. <https://doi.org/10.1016/j.pragma.2013.08.009>

- Simons, Mandy. 2005. "Presuppositions and Relevance." In *Semantics Versus Pragmatics*, ed. by Zoltán Gendle Szabo, 329–355. Oxford: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780199251520.003.0009>
- Sperber, Dan. 2005. "Modularity and Relevance: How Can a Massively Modular Mind Be Flexible and Context Dependent?" In *The Innate Mind*, ed. by Peter Carruthers, Laurence Stephen, and Stephen Stich, 53–68. Oxford: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780195179675.003.0004>
- Sperber, Dan, Fabrice Clément, Christophe Heintz, Olivier Mascaro, Hugo Mercier, Gloria Origgi, and Deirdre Wilson. 2010. "Epistemic Vigilance." *Mind and Language* 25 (4): 359–393. <https://doi.org/10.1111/j.1468-0017.2010.01394.x>
- Sperber, Dan, and Deirdre Wilson. 1987. "Precis of Relevance: Communication and Cognition." *Behavioral and Brain Sciences* 10 (4): 697–710. <https://doi.org/10.1017/S0140525X00055345>
- Sperber, Dan, and Deirdre Wilson. 1995. *Relevance: Communication and Cognition*. Oxford: Blackwell.
- Sperber, Dan, and Deirdre Wilson. 2015. "Beyond Speaker's Meaning." *Croatian Journal of Philosophy* 15 (44): 117–149.
- Von Fintel, Kai. 2004. "Would You Believe It? The King of France is Back! (Presuppositions and Truth-Value Intuitions)." In *Descriptions and Beyond*, ed. by Marga Reimer, and Anne Bezuidenhout, 315–339. Oxford: Oxford University Press.
- Wharton, Tim. 2017. "Doing What Comes Naturally." *Paper presented at Pragmatics Next*, University of Fribourg, March 13, 2017.
- Wilson, Deirdre. 2016. "Reassessing the Conceptual-Procedural Distinction." *Lingua* 175: 5–19. <https://doi.org/10.1016/j.lingua.2015.12.005>
- Wilson, Deirdre. 2018. "Relevance Theory and Literary Interpretation." In *Reading Beyond the Code: Literature and Relevance Theory*, ed. by Terence Cave, and Deirdre Wilson, 185–204. Oxford: Oxford University Press.
- Wilson, Deirdre, and Robyn Carston. 2019. "Pragmatics and the Challenge of 'Non-propositional' Effects." *Journal of Pragmatics* 145: 31–38. <https://doi.org/10.1016/j.pragma.2019.01.005>
- Wilson, Deirdre, and Dan Sperber. 1979. "Ordered Entailments: An Alternative to Presuppositional Theories." *Syntax and Semantics* 11: 299–323.
- Wilson, Deirdre, and Tim Wharton. 2006. "Relevance and Prosody." *Journal of Pragmatics* 38 (10): 1559–1579. <https://doi.org/10.1016/j.pragma.2005.04.012>

Metaphor comprehension

Meaning and beyond

Elly Ifantidou

National and Kapodistrian University of Athens

Preliminary evidence on non-propositional effects as indispensable to the informational content of metaphorical utterances is provided in Ifantidou (2019), Ifantidou and Hatzidaki (2019). The idea put forward was that the aesthetic apprehension of linguistic metaphors extends to enriching underdetermined aspects of propositional content.

In this paper, I further examine the distinguishing aspects of metaphors during interpretation. Following Sperber and Wilson 2015, Wilson and Carston 2019, I argue that an emotional response is triggered to the situation represented by the metaphor (see also Ifantidou 2019). I will suggest that metaphors enhance comprehension by being vehicles for emotions such as affection or dislike, as in texts which present difficulties in language comprehension. In these cases, metaphors evoke non-propositional effects, such as images or emotional responses, by connecting to interpreters' perceptions, memories, previous experiences, imagining, and beliefs. Evidence that addressees are able to derive meaning more frequently from metaphors than from literal sentences in equally supportive linguistic contexts (in terms of length, complexity, linguistic under-determinacy) attenuates the idea that metaphors enhance understanding as a merely linguistic tool, and reinforces the view that metaphorical processing involves a blend of language information with perceptual experience.

Keywords: images, emotions, non-propositional meaning, non-creative metaphors, lexical gaps

1. The issues

Recent efforts to uncover the processes through which metaphors are understood have sought to tease apart conventional from creative uses of figurative language (see Gibbs 2010; Carston 2010; see also Bowdle and Gentner 2005). Consider the 'frozen' metaphor below:

- (1) A. *Student*: Wasn't it Samuel Johnson who said of Shakespeare himself that he had little Latin and less Greek?¹
 B. *Professor*: You mean Ben Jonson, of course.
 A'. *Student*: Of course. *A slip of the tongue.*

(John Williams, *Stoner*, Chapter 9, p. 139)

In (1), the metaphorical meaning is stored in memory and retrieved whole (Gibbs 2010), or else it is harder to retrieve by inference alone.² On the other end, creative metaphorical uses are less determinate than a single proposition and hard to duplicate from the speaker's to the hearer's mind (Wilson and Carston 2019). Consider the creative metaphor below:

- (2) As they stared blankly, in dumb misery deepening as they slowly realized all they had seen and all they had lost, a capricious little breeze, *dancing up* from the surface of the water, tossed the aspens, shook the dewy roses, and blew lightly and caressingly in their faces, and *with its soft touch came instant oblivion.*

(Kenneth Grahame *The Wind in the Willows*, p. 136)

Example (2) triggers the image of swirling breeze which swings through the floating plants, lands softly on Rat's and Mole's faces and sweeps away awful remembrance. For some readers, the prevailing visual image is the wind's delicate dance. For others, the prevailing impression is the sensation of forgetfulness. Moreover, note that experiencing these mental representations can cause emotional responses (e.g. pleasure, or sadness), in the same way solar rays cause feelings of well-being or happiness. Clearly, open-ended, less determinate and more nuanced communicative effects depend on individual memories, associations and "inferential leaps". And these can be experienced regardless of metaphor type, as I will argue next.

Wilson and Carston (2019) discuss types of non-propositional effect communicated by figurative and non-figurative uses alike. As they observe, conventional metaphors convey emotions, too, e.g. the student's resentment to personal criticism or to his relationship with his professor in (1). Notice that emotions are felt because of our attitudes towards the world, i.e. taking the professor's comment to be offensive makes one feel shame of himself (see Deonna and Teroni 2012; Smith 2014).

Whether triggered by emotions or attitudes, the interpretations of (1) and (2) discussed above rely on links to individual memories and associations which are not of the same processing load, but of the same quality, namely, largely inferential. And although they are part of our private emotional experience, as Carston and Wilson

-
- (1A) paraphrased here as 'little command of Latin and less of Greek'.
 - Depending on their lexical flexibility (i.e. compositionality and semantic analyzability), certain 'fixed' expressions are arguably easier to understand, as in the case of *lend a hand*, *hate sm's guts*, *treat like a dog*, as opposed to *spill the beans*, *kick the bucket*, *blow your stack*, etc.

observe (2019), most of the times, metaphors trigger intuitions which interlocutors can share as insights or a loose impression. I consider this possibility next.

As already suggested by the discussion of examples 1 and 2, emotions have content, or are meaningful in the sense that they are directed at things.³ When I am angry, I am angry at something or with someone, so, my anger exhibits intentionality, hence it has content: the ‘object’ towards which anger is directed.⁴ And as it is with anger, so it is with other emotions. This interplay between determinate, propositional meaning, e.g. thoughts about the nature of our emotions, and less determinate types of meaning, e.g. images or emotions experienced,⁵ seems to be crucial in cases where lexical meaning is not fully grasped in L2 or L1.⁶ My intention in this chapter is to show that certain types of non-propositional effect must be integrated in the interpretation process when linguistic channels fail to support it.

Evidence from a second language suggests that non-propositional effects are indispensable for meaning making (Ifantidou 2019; Ifantidou and Hatzidaki 2019, and section 4). Should there be any reason, then, to suppose that L2 data can be used in defense of a pragmatic theory which extends to cases of linguistic communication where non-propositional effects play a crucial role?

If we could provide evidence that metaphors are successfully interpreted significantly more often than literal equivalents in conditions of controlled linguistic context, factors of non-linguistic import could be responsible for comprehension. When linguistic context is counterbalanced in within-subject conditions, it might be worth exploring whether the imagistic component of meaning in metaphor understanding has an effect over and above linguistic context.⁷ In the light of the above assumption, the questions I am interested in addressing are:

3. This is not to say that emotions have propositional content, although it does not rule it out.

4. “Intentionality” is a characteristic feature of our mental states or experiences – our perceptions, thoughts, beliefs, hopes, fears, and so on – being “of” or “about” something and so giving us a sense of an object or state of affairs in our world. For instance, the belief that The Parthenon frieze, Acropolis, belongs to The Parthenon and to the Acropolis Museum is about Acropolis, as is the awe of the Parthenon, and the desire to return the frieze from the British to the Acropolis Museum. On the essential role of meaning in intentionality, see McIntyre and Smith 1989.

5. On how emotional effects interact with propositional meaning, see Wharton and Strey 2019.

6. As pointed out by one anonymous reviewer, it is often the case in L1, too, that speakers use words that other speakers don’t know.

7. Literal text can invoke imagery, too, predominantly in literary prose or poetry (see Indurkha 2016). The difference with metaphors lies in that imagery in ordinary literal utterances, as in “It is raining”, “The water is boiling” is optional, hence not necessary for comprehension. On the contrary, metaphor is squarely defined by its visionary quality, and by the inextricable bound of the verbal and the visual elements in meaning making (for an excellent analysis of the visual aspect of metaphors in Ancient Greek classics, see Ferrari 1997).

1. How do we interpret metaphors and literal equivalents in similar⁸ linguistic contexts?
2. What is the role of linguistic context?
3. Are images and emotions purely aesthetic, or meaning-bearing?

In what follows, I first outline the original definition of metaphor by Aristotle, subsequently subjecting it to a somewhat more detailed scrutiny within the current psycholinguistic research. As will be seen, there are a number of links that can be drawn which help to determine metaphor's role in verbal communication.

2. The role of metaphors in meaning-making

The classic view, that metaphors enhance the aesthetic value of verbal communication by unusual, rare words, by adding beauty, liveliness and charm to impress the hearer with surprise, was originally expressed by Aristotle (*Rhetoric*, Book 3, chapter III 4, 10–11; *Poetics* 21–22, see quotes below). This view can be seen to be inadequate when we note that, for any candidate interpretation, metaphors may accompany widely differing emotions in different individuals: joy and awe, misery and sorrow, anger and fear, hope and disillusion. Thus, in his *Rhetoric*, Aristotle evaluated metaphors for their effect not only through the *meaning* understood but through the *senses*, too. In Aristotle's words,

τὰς δὲ μεταφορὰς ἐντεῦθεν οἰστέον, ἀπὸ καλῶν ἢ τῆ φωνῆ ἢ τῆ δυνάμει ἢ τῆ ὄψει ἢ ἄλλῃ τινὶ αἰσθήσει. διαφέρει δ' εἰπεῖν, οἷον ῥοδοδάκτυλος ἡὼς μᾶλλον ἢ φοινικοδάκτυλος, ἢ ἔτι φαυλότερον ἐρυθροδάκτυλος.

[Metaphors therefore should be derived from what is beautiful either in sound, or in signification, or to sight, or to some other (physical) sense. For it does make a difference, for instance, whether one says “rosy-fingered morn,” rather than “purple-fingered,” or, what is still worse, “red-fingered.”]

(*Rhetoric* III 11. 12–13, <https://ryanfb.github.io/loebolus-data/L193.pdf>, p. 359)

With this, Aristotle combined his view of aesthetic evaluation with bodily perception and cognition as channels used while interpreting metaphors. To illustrate how metaphors appeal to our senses, Aristotle used the example of rosy-fingered morning. This is a metaphor of salient aesthetic value which draws on the visual image of early dawn shining forth with rosy hands, wherein emotions may ensue from the imageability visualized. A word about Aristotle's view of the role of emotions through bodily experience is in order.

8. Similar, i.e. involving common features of lexicogrammatical import.

For Aristotle, metaphors unveil the bright or grim side of referents through appropriate *epithets* (adjectives) which rely on opposites. Aristotle further proposed that to honour a referent, we must derive our metaphor from the better species under the same category; whereas to degrade our referent, from the worse. For instance, referring to ‘actors’ as ‘hangers-on of Dionysus’ instead of ‘artists’, and to a priest as “mendicant priest” instead of a ‘torch-bearer’ (*δαδούχος*/dadouchos, in ceremonies) are metaphors which disgrace the referents (*Rhetoric* III. II. 10–11). Similarly, ‘rose-fingered dawn’ is preferable for reminding of what is agreeable to the sight and the smell, compared to ‘red-fingered’ which suggests cooks’ hands or other vulgar associations. The act of evoking agreeable or vulgar, beautiful or deformed, moral or obscene, pleasant or unpleasant associations is a defining aspect of metaphors, and of *epithets* employed to create them. So, metaphors appeal to our senses either through images, or through emotions of varying strength and intensity, or both (see Cope 1877).

Aristotle’s account neatly reflects the fact that one of the things that makes metaphors such a fascinating topic is that it stands at the intersection of cognition, perception and emotions. At a second glance, Aristotle described an assumption that had an unparalleled influence on contemporary research into links of metaphor comprehension with brain and sensorimotor activity. In effect, the brain’s activity can show whether the neural basis of metaphor processing is classical language areas or somatosensory regions by seeking the relative weighting of language processing over motor-related activity. I will next review links of metaphor comprehension with emotions and somatosensory experience.

On emotional engagement, Citron and Goldberg 2014 showed that highly conventional metaphors (*She looked at him sweetly*) engage a region of the brain called amygdala more strongly than their literal equivalents (*She looked at him kindly*). It is important to stress that this finding has been replicated with natural stories, single sentences and metaphors not related to taste, in native and second language users (by Citron et. al. 2016a, b). Typically, this region responds to emotionally intense experiences, such as encountering a bear or seeing water in the desert (Cunningham and Brosch 2012; Garavan et al. 2001; Hamann and Mao 2002). Recently, Citron and Zervos (2018) probed into why metaphors are more emotionally engaging, and provided evidence by functional magnetic resonance imaging (fMRI) that metaphors (e.g. *That was a bitter breakup*) are perceived as more beautiful than their literal counterparts (*That was a bad breakup*). Consider again the three natural behaviours mentioned by Aristotle above: metaphors evoke beauty to the *ear*, to the *understanding*, to the *eye* or some *other physical sense*. These channels are quite different—one is cognitive and the others perceptual—and we need to consider their joint effect or their causal role in the individual’s brain state while processing metaphors.

In this direction, Citron and Zervos (2018) found that increasing beauty ratings of metaphors did not correlate with enhanced activation of the (left) amygdala, which was previously found more active during reading of figurative compared to literal expressions. Therefore the stronger emotional engagement previously found is not likely due to an aesthetic evaluation of the *linguistic* materials used. Instead, their results point toward the recruitment of the somato-motor system during aesthetic perception, as during appreciation of art, but show no evidence of activation of the emotion systems. As the authors observe, this may be due to the fact that highly conventional expressions used in every-day conversation are very easy to understand and do not present the expert reader with a particularly challenging, hence cognitively or emotionally rewarding comprehension task.

This observation is confirmed by neurology studies which show that apart from language processing regions of the brain, the brain may be replaying sensory experiences even with common, familiar metaphors (see Lacey et al. 2012; Lacey et al. 2017). On sensorimotor activation, Lacey et al. 2012 presented evidence that textural metaphors with negative connotations e.g. *rough day*, *slimy person*, activated cortical somatosensory texture-selective areas related to touch. When contrasted with literal paraphrases, no differential activation was observed in language processing or visual or bi-sensory texture selective areas. This suggests that metaphor processing selectively activated touch-related sensory areas in the perceptual system, from which the metaphors primarily derived their meaning. To isolate the brain regions underlying metaphorical and literal use of body-part words, Lacey et al. 2017 used body-related metaphors referring to arms, legs and faces (e.g. *she shouldered responsibility* vs. she took responsibility; *she turned a blind eye* vs. she took no notice) and showed that sentences containing body-part metaphors elicited activations in or near the related domain-specific sensorimotor cortical regions, i.e. in motor, somatosensory, and visual cortex but no preferential activity was found in body-related cortex for the body literal sentences. With regard to visual imageability,⁹ no links were found for reasons relating to the ease of imagery, which as a metaphor becomes conventionalized activates a weaker or less detailed perceptual simulation (e.g. compare conventional *He had to foot the bill* vs. non-conventional *Science is a glacier*¹⁰).

On the role of mental imagery, Benedek et al. (2014) studied novelty in creative metaphor production by zooming in on the flexibility of semantic memory to imagine and create novel figures of speech. They presented participants with short phrases which they completed with metaphors *The lamp is ... [a supernova]*, or literal expressions *The lamp is ... [glaring]* in order to isolate brain regions related

9. How easily the sentence as a whole evokes a mental image.

10. In other words, science progresses slowly but steadily.

to the creativity of responses. In metaphor production, stronger activation was observed in the left PCC (posterior cingulate cortex) which is thought to play an important role for episodic memory retrieval (see Vincent et al. 2006) and visuospatial mental imagery (see Hassabis and Maguire 2007). Notice that the same areas (namely, left inferior parietal cortex, left angular gyrus) which are activated when participants are asked to imagine an event in the future and generate novel ideas show increased activation during the production of metaphors. The authors argued that creating new metaphors relies on neural substrates and common generative processes which draw on stored knowledge and employ semantic processing and integration. For instance, generating novel uses of objects, recalling events from the past, imagining events in the future. These types of cognitive process are tantamount to the creative quality of metaphor production and comprehension, and taken together, are observed in the same brain region, the left AG.

Within relevance theory, arguments for the role of mental imagery in metaphor comprehension were originally expressed by Carston (2010) (see also Golding 2015), who pointed out that “images are not only non-propositional effects of metaphor comprehension, but also, at least in some instances, *vehicles* used in the recovery of propositional effects.” (Carston 2010: 300). Due to the imagery that seems to be characteristic of many metaphors, a range of affective effects are derived, for example, bliss and oblivion by the wind’s soft touch (in Example 2 above). In effect, imagistic creativity (by, for instance, deeper semantic processing, lingering on a detail, forming a new metaphorical chain), licenses conceptual content in ways that “do fall within the author’s overtly intended meaning and the author may intend or, at least, expect the imagery to be so used.” (Carston 2010: 317). In a recent discussion, Sperber and Wilson (2015) argue for the key role of non-propositional effects in utterance comprehension. The significant attention they devoted to what implicatures communicate brought out a closer look at the quality of premises in the inferential process. In Sperber and Wilson’s words:

Not all inferences involve step by step logical derivations of explicit conclusions from explicit premises. Arguably, the vast majority of inferences made by humans and other animals do not involve such derivations. What happened in Robert’s brain when he opened the window [to see what the weather is like and go for a walk] might be better described as changes in patterns of activation, none of which would properly speaking amount to the fixation of a distinct credal representation, but the totality of which would correspond to the formation of an impression.

(Sperber and Wilson 2015: 137)

Robert’s change of mind not to go for a walk is based on an impression of what the weather looks like from his window. Instead of forming a determinate proposition, Robert relies on what he sees (dark clouds) and feels (chilly air), to infer from his impression that it is not a good idea to go for a walk. This is a case of very weak

communication, where Robert entertains perhaps some, probably not all the propositions that form the premises to reach a conclusion, and if at all, he entertains them not as distinct propositions but the general drift of an array of propositions.

Metaphors are similar in that “any conceivable paraphrase of the speaker’s meaning would be quite defective.” (Sperber and Wilson 2015: 146). Metaphors, too, typically convey weak implicatures and weak explicatures, and this is probably what gives them an advantage in comprehension over their literal paraphrases. With this in mind, the principal advantage of impressions over determinate propositions is one of adequacy, rather than accuracy: determinate propositions are truth evaluable, impressions are perceptually rewarding and private, yet shared to a great extent by the addressee. Sperber and Wilson place impressions at the metaphor’s (“Juliet is the sun”) content in the following way:

The communicator need not intend the addressee to make this or that specific inference; her intentions may concern only the general drift of the addressee’s inferences and remain quite vague, and so may the addressee’s understanding, without this amounting to a failure of comprehension. What is aimed at in such cases of weak communication is a degree of cognitive alignment, not a duplication of precise contents. (Sperber and Wilson 2015: 147)

In the light of the above observations, I would like to suggest that metaphors may convey a vague impression or an array of inferences when the lexical meaning of the metaphor is not fully grasped. If different cases of meaning – determinate propositions and impressions – are indispensable in metaphor comprehension, a pragmatic theory should embrace both types of inference, the linguistic and the sensory.

Preliminary evidence on non-propositional effects which are indispensable to the informational content of utterances is provided in Ifantidou (2019). The idea put forward was that the aesthetic values of words in L2 metaphors play a key role in fledging underdetermined aspects of propositional content. On a closer look, it was shown that the affective values of unknown words and prior experience of participants guided them to interpreting correctly metaphors whose key metaphorical word was stated as unknown. In a follow-up study, Ifantidou and Hatzidaki (2019) put Carston’s (2010) theory to the test in an L2 context and found, that the implicature and the synonymous conditions in the norming study although they differed in performance in reading comprehension ($M = 5.7$ and $M = 4.8$ respectively) showed a negative correlation with reaction time (RT) in the reading comprehension task, whereby high arousal was related to shorter RT. We suggested that emotional arousal may have facilitated metaphorical processing of otherwise challenging content for L2 speakers where propositional meaning may not be fully grasped.

Next, I will present evidence that metaphorical words trigger better performances than literal words by unlocking mechanisms of verbal comprehension which make manifest an array of vague propositions. On the basis of these, addressees can form an impression, an emotion, or a change of mind and an attitude (e.g. a weak belief) and as a result, help to unclog comprehension channels otherwise undermined (for instance, by semantic gaps).

3. Methodology

3.1 Participants

39 students of the Department completed the two tests, with the same words in literal and metaphorical contexts. Of these, 22 (56,4%) were at the first semester and 17 (43.6%) at the seventh semester of their studies. Their level of English language competence was C2 / proficient (82.1%).

3.2 Expert Judges

Two expert judges were kindly requested to evaluate participants' answers as correct or incorrect. Both judges were considered highly-qualified for the task at hand. During an introductory session, judges were informed about the aims of the research and the importance of their contribution to the overall validity of the study. They were also provided with a specially designed leaflet that included evaluation guidelines and samples of classified examples followed by a short description of their semantic and pragmatic characteristics. To avoid contamination of ratings, judges worked independently and no personal communication was possible between them.

3.3 Designed Test

The test was piloted with a group of language learners similar to those in the main study and modifications were made based on participants' comments during the piloting phase and suggestions kindly made by experts in the field who were professors with more than ten years of experience teaching English language related courses. The reliability of the test was estimated to be .84 using Kuder-Richarson 21 formula (setting the cut-off score per item to .70).

The same stimuli word was used in two linguistic contexts, a literal (items 1–24) and a metaphorical (items 25–48), preserving the same grammatical form and syntactic role, in sentences of the same syntactic structure, order of word type and number of words (9–11 words per sentence) (see examples 3–6). Linguistic context was counterbalanced in terms of semantically related neighbours, too. An equal number of nouns and verbs were used. Words were chosen from a list of attested unknown words which resulted from previous research of the author administered with different groups of students of the same level.

e.g.

- (3) A teenager survived a *plunge* of 55 metres over Niagara Falls.
An analyst reported a *plunge* of 55 percent over consumer spends.
- (4) Scientists *deciphered* our genetic code by analyzing our chromosome genes.
Scientists *deciphered* the great artist by analyzing his London series.
- (5) In a *dash* to the finish line top speed is especially important.
Without a *dash* of imagination realism is utterly depressing.
- (6) The mob *thrashed* a Nigerian man who robbed someone's house.
The opposition *thrashed* the Socialist Party in the national election.

Stimuli sentences originally appeared in newspaper articles and were adapted (shortened) for the purposes of the tests. For each test item of the 48 answered overall, participants were asked to provide one or two (at maximum) relevant implicature(s) derived from the expression in bold (the key metaphor word), to state whether the word in bold was unknown (yes/no answer), and if so, to provide its meaning retrieved with the aid of context (correct/incorrect answer).

Upon completing the second test, participants were asked to state which of the two was more difficult, the literal or the metaphorical. The aim of this self-reported finding was to cross-check with the results obtained from their correct/incorrect answers overall.

3.4 Rating

Correct word interpretation was assessed on a scale 0–2. The two judges evaluated answers by 0/1 (wrong/right) or by 2 as the maximum score (if both judges evaluated the answer as correct).

Implicature retrieval (maximum 2 implicatures per test item) was assessed on a scale 0–4. The two judges evaluated each answer at maximum by 2 correct implicatures per judge, at maximum by 4 correct implicatures overall by the two judges.

4. Results

The findings report a comparison between participants' performance in the literal vs. the metaphorical stimuli sentences in terms of (a) perceived difficulty of the tests, (b) unknown words and correct word interpretation, (c) correct implicature retrieval.

On *perceived difficulty of the tests*, based on what participants stated, 80% mean difficulty was revealed for the literal items and 46% mean difficulty for the metaphorical items.

On *unknown words*, participants encountered unknown words more frequently in the literal items overall (41.97% average unknown word literal items) than the metaphorical items overall (37.56% average unknown word metaphorical items).

On *correct word interpretation*, the One-Sample T-test revealed statistically significant differences at the .05 level as regards correct word interpretation between the two groups of items. Correct response rates were significantly fewer for the literal items than for the metaphorical ones ($t = -11.267$, $df = 38$, $p < .05$). Which means that judges rated by average more correct answers for metaphorical items (Mean: 1.55/2.00) than for literal items (Mean: 1.45/2.00).

On *implicature retrieval*, the One-Sample T-test revealed statistically significant differences at the .05 level as regards correct implicatures between the two groups of items. Average correct response rate was significantly lower for the literal items than for the metaphorical ones ($t = -12.567$, $df = 38$, $p < .05$). Which means that judges rated by average fewer correct answers for the literal items (Mean: 2.39/4.00) than for metaphorical items (mean: 2.50/4.00). All above differences are statistically significant.

A second significant finding is that *correct implicatures* do not depend on unknown words or perceived level of difficulty since no correlations were obtained in either case.

Finally, on comparing frequencies of *unknown words* and *correct word interpretations*, a significant difference between unknown word and correct word interpretation was found. In other words, unknown words triggered incorrect word interpretations / Not unknown words triggered correct word interpretations.

On links to level of *language proficiency* and *semester*, no correlations were found between correct word interpretation and level of language proficiency, or semester. Therefore, it is not possible to draw a conclusion as to whether the level or semester impacted on their guessing the correct word interpretation based on the context.

Specifically, unequal numbers of participants across language levels may be the reason for lack of correlations here. At the same time, per item analysis using level of language proficiency or semester reveals equivocal tendencies, namely positive

(the higher the level of language proficiency, the higher the rates of correct word interpretation) and reverse correlations (the higher the language level, the lower the rates of correct word interpretation).

5. Discussion

This study does not provide evidence as to what makes metaphors better candidates for comprehension in terms of ease, effort or positive effects incurred. But it does provide evidence as to the reduced role the linguistic context may play in this process.

Notice that the new variables attested in this study are the elliptical semantics, i.e. the not fully grasped propositional meaning, and the controlled linguistic context in terms of word length, word order, word count, and semantically related neighbours. Taken together, these settings create a sentential frame whose role is secondary, and neutral in the sense that it should offer no advantage across conditions. The question is how we can explain that metaphors evoke better performance rates compared to literal expressions when the linguistic context is equally sufficient, i.e. qualitatively similar, and equally insufficient, i.e. semantically incomplete, to support the interpretations retrieved? What is distinctive about metaphors *per se* in facilitating comprehension?

Preliminary evidence on the linguistic context's attenuated effect on this process is provided in Ifantidou 2019, where meanings retrieved were related to participants' perceptual experience and clearly less to the linguistic context of unknown metaphorical words. In the current study, the evidence on unknown metaphorical words which participants failed to interpret (37,56%) suggests that the linguistic context did not elicit the meaning of the unfamiliar metaphorical words in those cases. However, in the same instances, implicatures were retrieved at 62,5%. Notice moreover that upon statistical analysis, implicatures are noncorrelated to unknown words. This second significant finding suggests that implicatures were not affected by the unknown metaphorical words. So, how can metaphors communicate implicatures when the metaphorical meaning itself is semantically incomplete?

With Aristotle's view in mind on the semantic role of imagination (and by implication, feeling), and the research on links between metaphor comprehension and the sensory parts of our brain, it is tempting to regard images and emotions as that part of our psychological life through which we are most personally engaged with meaning-making. The evidence in this study shows that metaphor's role as a link to what is relevant to us is not ornamental in nature. As shown, metaphors are interpreted smoothly and successfully more frequently than literal sentences in linguistic contexts which are equally sufficient to work out the intended interpretation. Given

metaphors' long-established link to psychological components such as images and feelings (see overview by Paul Ricoeur 1978), it is natural to assume that their distinguishing feature from literal lexical items is their *pictorial* and *emotive* value. If we can design experiments with emotion-content and non-emotion content words, clearer results on the role of emotion in processing literal vs. metaphorical words can be obtained. And if we can design experiments situating metaphors in a minimal context, clearer results on the role of linguistic complexity in metaphor processing could be obtained. Setting the above options aside, this study showed that finding meaning in the absence of linguistic channels is a feasible task, with metaphors faring better than literal stimuli in this search. What could explain this outcome? I suggest that in looking for an answer, images and emotions must be assessed for their role as meaning-bearing components in metaphors which are compared to literal expressions of equal contextual support.

6. Conclusion

This study does not deny the informative value of metaphors in providing fresh insights into reality. On the contrary, it argues for the role non-propositional effects can play in this process, by assisting the derivation of propositional meaning in cases of sub-propositional metaphors (due to a lexical gap in L2, or L1). I have argued that common metaphors as in examples (3–6) can elicit a range of implicatures which need not be triggered by the linguistic context. This idea is supported by the fact that addressees were able to derive meaning more frequently from metaphors than from literal sentences in equally supportive linguistic contexts. What else could influence interpretation in the presence of supportive sentential context of equal complexity, length and lexical gaps? With the mounting neurolinguistic evidence, the long philosophical tradition and the evidence on the role of sensorimotor experience in metaphor comprehension, we can begin to assign a semantic function to what seem to be mere psychological, accompanying factors to the informative crux of the metaphor.

Acknowledgements

I would like to thank Tim Wharton, Louis de Saussure, Deirdre Wilson, Trisevgeni Liontou, and the audience of the *Relevance-by-the-Sea* workshop for their comments. Special thanks to the anonymous reviewers for their insightful suggestions; all inadequacies remain mine.

References

- Aristotle. *Rhetoric* [The 'Art' of Rhetoric Aristotle]. Translated by John Henry Freese. 1959. London: William Heinemann. Retrieved from: <https://ryanfb.github.io/loebolus-data/L193.pdf>.
- Benedek, Mathias, Roger Beatyb, Emanuel Jauka, Karl Koschutniga, Andreas Finka, Paul J. Silvia, Beate Dunsta, and Aljoscha C. Neubauer. 2014. "Creating Metaphors: The Neural Basis of Figurative Language Production." *Neuroimage* 90: 99-106. <https://doi.org/10.1016/j.neuroimage.2013.12.046>
- Bowlde, Brian F., and Dedre Gentner. 2005. "The Career of Metaphor." *Psychological Review* 112: 193-216. <https://doi.org/10.1037/0033-295X.112.1.193>
- Carston, Robyn. 2010. "Explicit Meaning and Free Pragmatic Enrichment." In *Explicit Communication: Robyn Carston's Pragmatics*, ed. by Belen Soria, and Esther Romero, 217-285. Palgrave Studies in Pragmatics, Language and Cognition. Basingstoke: Palgrave Macmillan. https://doi.org/10.1057/9780230292352_14
- Citron, Francesca M. M., and Adele E. Goldberg. 2014. "Metaphorical Sentences Are More Emotionally Engaging than Their Literal Counterparts." *Journal of Cognitive Neuroscience* 26: 2585-2595. https://doi.org/10.1162/jocn_a_00654
- Citron, Francesca, M. M., Jeremie Güsten, Nora Michaelis, and Adele E. Goldberg. 2016a. "Conventional Metaphors in Longer Passages Evoke Affective Brain Response." *NeuroImage* 139: 218-230. <https://doi.org/10.1016/j.neuroimage.2016.06.020>
- Citron, Francesca, M. M., Nora Michaelis, and Adele E. Goldberg. 2016b. "Comprehension of Conventional Metaphors by Second Language Speakers: Do They Show the Same Degree of Emotional Engagement as Natives Do?" *Paper presented at the UK Cognitive Linguistics Conference (UK-CLC)*, Bangor, UK.
- Citron, Francesca M. M., and Emmanouil A. Zervos. 2018. "A Neuroimaging Investigation into Figurative Language and Aesthetic Perception." In *Sensory Perceptions in Language, Embodiment and Epistemology*, ed. by Annalisa Baicchi, Rémi Digonnet, and Jodi Sanford, 77-94. Cham, Switzerland: Springer. https://doi.org/10.1007/978-3-319-91277-6_5
- Cope, Meredith Edward. 1877. *The Rhetoric of Aristotle with a Commentary*. Vol.3. Cambridge: Cambridge University Press.
- Cunningham, William A., and Tobias Brosch. 2012. "Motivational Salience Amygdala Tuning from Traits, Needs, Values, and Goals." *Current Directions in Psychological Science* 21 (1): 54-59. <https://doi.org/10.1177/0963721411430832>
- Deonna, Julien A., and Fabrice Teroni. 2012. *The Emotions: A Philosophical Introduction*. London: Routledge. <https://doi.org/10.4324/9780203721742>
- Ferrari, Gloria. 1997. "Figures in the Text: Metaphors and Riddles in the Agamemnon." *Classical Philology* 92 (1): 1-45. <https://doi.org/10.1086/449329>
- Garavan Hugh, Jo Cara Pendergrass, Thomas J. Ross, Elliot A. Stein, and Robert C. Risinger. 2001. "Amygdala Response to Both Positively and Negatively Valenced Stimuli." *Neuroreport* 12: 2779-2783. <https://doi.org/10.1097/00001756-200108280-00036>
- Gibbs, Raymond W. Jr. 2010. "Idioms and Formulaic Language." In *The Oxford Handbook of Cognitive Linguistics*, ed. by Dirk Geeraerts, and Hubert Cuyckens, Oxford Handbooks Online. <https://doi.org/10.1093/oxfordhb/9780199738632.013.0027>.
- Golding, Alex. 2015. "Mental Imagery and Metaphor." *Porto Alegre* 8 (1): 20-32.
- Green, Nancy, and Sandra Carberry. 1999. "Interpreting and Generating Indirect Answers." *Computational Linguistics* 25 (3): 389-435.

- Hamann, Stephan, and Hui Mao. 2002. "Positive and Negative Emotional Verbal Stimuli Elicit Activity in the Left Amygdala." *Neuroreport* 13 (1): 15-19. <https://doi.org/10.1097/00001756-200201210-00008>
- Hassabis, Demis, and Eleanor A. Maguire. 2007. "Deconstructing Episodic Memory with Construction." *Trends in Cognitive Science* 11 (7): 299-306. <https://doi.org/10.1016/j.tics.2007.05.001>
- Ifantidou, Elly. 2019. "Relevance and Metaphor Understanding in a Second Language." In *Relevance, Pragmatics and Interpretation*, ed. by Kate Scott, Billy Clark, and Robyn Carston, 218-230. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290593.019>
- Ifantidou, Elly, and Anna Hatzidaki. 2019. "Metaphor Comprehension in L2: Meaning, Images and Emotions." *Journal of Pragmatics* 149: 78-90. <https://doi.org/10.1016/j.pragma.2019.06.005>
- Indurkha, Bipin. 2016. "Towards a Model of Metaphorical Understanding." In *Metaphor and Communication*, ed. by Elisabetta Gola, and Francesca Ervas, 123-146. Amsterdam and Philadelphia: John Benjamins Publishing Company. <https://doi.org/10.1075/mlcc.5.07ind>
- Lacey, Simon, Randall Stilla, and Krishnankutty Sathian. 2012. "Metaphorically Feeling: Comprehending Textural Metaphors Activates Somatosensory Cortex." *Brain and Language* 120 (3): 416-421. <https://doi.org/10.1016/j.bandl.2011.12.016>
- Lacey, Simon, Randall Stilla, Gopikrishna Deshpande, Sinan Zhao, and Krishnankutty Sathian. 2017. "Engagement of the Left Extrastriate Body Area during Body-Part Metaphor Comprehension." *Brain and Language* 166: 1-18. <https://doi.org/10.1016/j.bandl.2016.11.004>
- McIntyre, Ronald, and David Woodruff Smith. 1989. "Theory of Intentionality." In *Husserl's Phenomenology: A Textbook*, ed. by Jitendra Nath Mohanty, and William R. McKenna, 147-179. Washington, DC: University Press of America.
- Ricoeur, Paul. 1978. "The Metaphorical Process as Cognition, Imagination, and Feeling." *Critical Inquiry* 5 (1): 143-159. <https://doi.org/10.1086/447977>
- Smith, Joel. 2014. "Are Emotions Embodied Evaluative Attitudes? Critical Review of Julien A. Deonna and Fabrice Teroni's *The Emotions: A Philosophical Introduction*." *Disputatio* 6: 93-106. <https://doi.org/10.2478/disp-2014-0005>
- Sperber, Dan, and Deirdre Wilson. 2015. "Beyond Speaker's Meaning." *Croatian Journal of Philosophy* 15 (44): 117-149.
- Wharton, Tim, and Claudia Strey. 2019. "Slave to the Passions: Making Emotions Relevant." In *Relevance, Pragmatics and Interpretation*, ed. by Kate Scott, Billy Clark, and Robyn Carston, 253-266. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290593.022>
- Wilson, Deirdre, and Robyn Carston. 2019. "Pragmatics and the Challenge of 'Non-propositional' Effects." *Journal of Pragmatics* 145: 31-38. <https://doi.org/10.1016/j.pragma.2019.01.005>
- Vincent, Justin L., Abraham Z. Snyder, Michael D. Fox, Benjamin J. Shannon, Jessica R. Andrews, Marcus E. Raichle, and Randy L. Buckner. 2006. "Coherent Spontaneous Activity Identifies a Hippocampal-Parietal Memory Network." *Journal of Neurophysiology* 96: 3517-3531. <https://doi.org/10.1152/jn.00048.2006>

SECTION 2

Beyond meaning

Ineffability and the written word

Conceptual mappings and contextual assumptions

The case of poetic metaphor

Anna Piata
University of Neuchatel

This chapter is concerned with what has traditionally been considered as ‘beyond meaning’: poetic metaphor. It specifically focuses on poetic metaphors of time, with the aim to address anew the relationship between pragmatic and cognitive linguistic approaches to metaphor (cf. Tendahl and Gibbs 2008; Wilson 2011). Such metaphors are shown to convey primarily an affective meaning, which can be best explained in terms of affective valence. At the level of metaphor comprehension, I argue for a synergy between metaphor theories but with appropriate adjustments in each framework: an extended view of encyclopedic entries for relevance theory, and a context-sensitive process of pragmatic inferring for conceptual metaphor theory.

Keywords: poetic metaphor, time, affect, conceptual mappings, poetic effects

*In painting as in music and literature what is called abstract
so often seems to me the figurative of a more delicate and
difficult reality, less visible to the naked eye.*

Clarice Lispector, “The Foreign Legion”

1. Introduction

Among the great many manifestations of ‘beyond meaning’ in verbal communication, metaphor is probably a case in point *par excellence*. Originally embedded within philosophy, rhetoric, and stylistics, in recent years the study of metaphor has known an unparalleled explosion within post-Gricean pragmatics (i.e., relevance theory) and cognitive linguistics (i.e., conceptual metaphor theory). The scope of studying poetic metaphor has profoundly changed; instead of analyzing poetic

metaphor in its own right, contemporary approaches to metaphor have aimed to connect it to general processes of meaning making, whether pragmatic or conceptual. This chapter aims to do justice to the idiosyncratic nature of poetic metaphor while also putting into perspective the relationship between contemporary approaches to metaphor.

While the last decades have witnessed a growing interest in metaphor research and a genuine transformation in terms of how metaphor should be defined and studied, the existing approaches diverge significantly vis-à-vis their theoretical and methodological scope. In particular, there are two main paradigms that can be currently traced in the field of metaphor research: cognitive linguistics (Lakoff and Johnson 1980, 1999; Lakoff and Turner 1989; Fauconnier and Turner 2002, 2008), and Relevance theory (Sperber and Wilson 1995; Carston 2002; Sperber and Wilson 2008). On the one hand, cognitive linguists treat metaphor as a figure of thought rather than of language, namely as a cross-domain mapping manifested in everyday expressions such as, e.g., “*We are approaching Christmas*”, “*Time flies*”, “*The time has come to make a decision*”, etc. Metaphor, along these lines, serves to conceptualize an abstract domain of experience (e.g., time) in terms of a more concrete domain with which it is associated in embodied experience (in this case, space/motion). Relevance theory, on the other hand, is a theory of utterance interpretation, grounded in the assumption that language users tend to pay attention to whatever information seems most relevant to them. In this account, metaphor is viewed as one of the various instantiations of speaking loosely, aiming at optimal relevance, and its understanding does not require specialized pragmatic processing of any sort.

More recently, metaphor scholars have considered the possibility to combine such otherwise diverging approaches with the aim to reach a comprehensive account of metaphor: “[w]e claim that cognitive linguistics and relevance theory are both much needed and can actually be integrated to a large extent as a cognitive theory of metaphor, even if there remain significant differences between these frameworks at a more global theoretical level” (Tendahl and Gibbs 2008: 1824; cf. Wilson 2011). This is what Tendahl (2009) calls a “hybrid theory of metaphor”.

This chapter engages with the dialogue that was initiated by these authors but for some reasons was – regretfully – not continued thereafter. Notwithstanding their differences (see Section 2), both theories have emphasized the *similarities* between metaphor and ordinary language, whether at the level of conceptual mappings or in terms of inferential processes. Nevertheless, by emphasizing the continuity of metaphor I suggest that both approaches largely miss the *uniqueness* of many metaphorical expressions. A prime example of this is poetic metaphor, which will be the focus of this chapter in the light of authentic linguistic data in Modern Greek and English.

Poetic metaphor exemplifies metaphorical creativity at its best. In line with previous accounts within relevance theory (cf. Pilkington 2000) I focus on what I consider to be the most prominent (and perhaps constitutive) component of poetic metaphors: communicating affective meaning(s).

However, unlike Pilkington's account, my take on affective communication through metaphor will be informed by findings in cognitive science, suggesting that affect should be better viewed in terms of *appraisal* (Scherer 2005). My focus will be specifically on poetic metaphors about time. The choice of time is not accidental. Time has been a central object of investigation within cognitive linguistics, with a prolific body of literature showing that it is metaphorically expressed, and conceptualized, in terms of space and motion. Time qualifies also from the perspective of poetry, since its descriptively ineffable nature lends itself to metaphorical and, more generally, figurative expression. In all, I consider time to offer an appropriate test-bed for exploring the relationship between cognitive linguistics and relevance theory.

In sum, the gist of the proposed analysis is that the pre-existing time-space mappings facilitate accessing the contextual assumptions required for metaphor understanding and in this sense they are largely overridden by the context in which they occur. I will specifically suggest that a synergy between metaphor theories is possible, and in fact much needed, but this also entails appropriate adjustments: relevance theory needs to entertain an extended view of encyclopedic entries while conceptual metaphor theory needs to encompass processes of pragmatic inferencing. In effect, the line of research proposed here aims, on the one hand, to account for the uniqueness *and* multiplicity of metaphorical meanings and, on the other, to contribute towards a working definition of literariness vis-à-vis metaphor. It is hoped, finally, that this approach will further promote not only synergy between cognitive linguistics and relevance theory but also a dialogue between linguistic and literary approaches to figurative language.

The structure of the chapter is as follows: in Section 2 I outline the two theories, and in Section 3 I analyze a sample of time metaphors derived from Modern Greek and English poetry. The chapter closes with a discussion of the findings and some concluding remarks.

2. Poetic metaphor: Cognitive linguistics vs Relevance theory

This section aims to sketch cognitive linguistics and relevance theory in relation to the focus of this paper: time conceptualization, and poetic metaphor. Be that as it may, this discussion is sketchy and by no means exhaustive (for a detailed overview, and a comparison, of the two theories see Tendahl and Gibbs 2008). I will

specifically focus on the standard accounts within each framework, although it is acknowledged that other approaches are also available within both paradigms, such as conceptual integration, or blending, theory (Fauconnier and Turner 2002, 2008) in cognitive linguistics, and Carston's imaginary world processing route (2010, 2018) in Relevance theory.

2.1 Cognitive linguistics: From time conceptualization to metaphorical creativity

Time lies at the core of metaphor research within cognitive linguistics. This approach builds on the empirical observation that time (just like many other abstract domains of experience that cannot be directly perceived through our senses) is linguistically expressed through the vocabulary of space and motion (see Clark 1973; Traugott 1978; Lakoff and Johnson 1980, 1999). According to Lakoff (1993: 218), our metaphorical understanding of time in terms of motion is biologically determined: "In our visual systems, we have detectors for motion and detectors for objects/locations. We do not have detectors for time (whatever that could mean). Thus, it makes good biological sense that time should be understood in terms of things and motion." Conceptual mappings, along these lines, motivate a great many everyday metaphors, thus bridging the level of expression with how people conceptualize time.

The gist of this account is that there is an entrenched cross-domain mapping between space/motion and time, which constitute the *source* and the *target domain* of the metaphor, respectively. The cross-domain mapping between space/motion and time corresponds to a so-called *conceptual metaphor*, which is linguistically manifested in expressions such as "*We are approaching Christmas*" and "*Christmas is approaching*". As suggested by these examples, the conceptual representation of time in terms of motion comes in two variants; one conceptualizes the experiencer of time (henceforth the "Ego") as moving in time (which is thereby construed as a landscape of events-as-locations), while the other represents time as moving past a stationary observer. The former is known as the *Ego-moving metaphor of time* and the latter as the *Time-moving metaphor*. Research across languages has offered ample empirical support in favor of these patterns (see, e.g., Haspelmath 1997; Radden 2006, 2011) while also attesting to considerable cross-cultural variation, especially in relation to the conceptualization of the past and the future (cf. Núñez and Sweetser 2006). Western languages, in particular, seem to share a common pattern that locates the future ahead of the experiencer and the past behind (Lakoff and Johnson 1999) as in, e.g., "*I'm looking forward to our summer vacation*" and "*Those sad days are behind*".

Stored as knowledge structures in long-term memory, along these lines conceptual metaphors of time motivate also verbal creativity. In order to explain how creative metaphors arise, Lakoff and Turner (1989: 67–72) proposed four mechanisms of figurative creativity. *Extension* refers to activating an aspect of the source domain (i.e., space/motion) that is not typically used when talking about time; for example, if one construes the flow of time as producing a gargling sound, the hearing event is not part of any known metaphor of time (and is not even compatible with our understanding of time). *Elaboration* also applies to the source domain and, in particular, to expressing one of its (already active) aspects in an unusual way; for instance, construing time as trampling evokes motion but this motion event is not conventionally associated with time, as is the case with, say, flying or flowing (see poem 2 in the following section). In contrast, *composition* relates to the combination of two (or more) conceptual metaphors at once; consider a metaphor in which the experiencer is construed as a traveler along the river of time. Finally, *questioning* corresponds to challenging a pattern commonly used for conceptualizing the target domain of time; to illustrate this, one may think of a scenario in which time moves vertically rather than linearly.

In sum, such mechanisms link creative metaphors with the conceptual patterns afforded in everyday discourse and are thus aimed to capture the continuity between conventional and creative metaphors. However, as I will show in the next section, they cannot do justice to the meanings communicated by the metaphor while verbal creativity often overrides them.

2.2 Relevance theory: Pragmatic adjustment and poetic effects

Relevance theory assumes an ostensive-inferential model of communication with the aim to explain how meaning is understood on the grounds of the cognitive capacities that humans are equipped with. The key to understanding how verbal communication works is the search for relevance; this is a basic feature of human cognition, which communicators also exploit (cf. the cognitive and the communicative principles of relevance). Relevance is seen as a function of cognitive effects and processing effort; interlocutors aim to maximize the cognitive benefit (for example, by strengthening or revising their previous beliefs) while minimizing the processing cost (including perception, attention, memory, and inference-making). Utterances raise expectations of relevance and thus guide the hearer towards inferring the speaker's meaning. According to the relevance-guided comprehension heuristic, while processing language the hearer will follow a path of least effort and will access the most relevant interpretation; as soon as expectations of relevance are satisfied, he will stop.

With respect to metaphor, relevance theory sets out to explain how hearers arrive at a metaphorical interpretation of an utterance. Under this view, metaphor is no longer considered a distinctive phenomenon of language, or one that requires special pragmatic processes in order to be understood. It is rather viewed as arising naturally in communication (like any other manifestation of *loose talk* such as hyperbole and approximation) only to enable communicating complex thoughts. In other words, it is just an alternative route to achieve optimal relevance. As Sperber and Wilson (2008: 84) put it, “[w]e see metaphors as simply a range of cases at one end of a continuum that includes literal, loose, and hyperbolic interpretations.” Whether an utterance should be understood literally, loosely or metaphorically depends on the mutual adjustment of context, processing effort and cognitive effects with the aim to satisfy the hearer’s expectation of relevance.

One of the basic tenets of relevance theory is that lexical meaning is pragmatically adjusted through *broadening* and *narrowing*; that is, the concept a speaker communicates may be more general or more specific than the concept that is lexically encoded. This is also the case with metaphor. Consider, for example, the expression “*John is a soldier*”, uttered as a reply to the question “*Can we trust John to do as we tell him and defend the interests of the Linguistics Department in the University Council?*” (from Sperber and Wilson 2002: 19–20). John is a student of the two professors who are engaged in this talk exchange. Therefore, in this context the utterance will be directly interpreted as metaphorical, implicating that John is reliable and should be trusted. How does the hearer arrive at this metaphorical interpretation? The encyclopedic entry for the concept SOLDIER contains a great many different features, such as being employed by the military; being a patriot; willingly following orders; being devoted to duty, etc. However, while processing this utterance, only those features that are contextually relevant will be accessed; viz. commitment and team spirit. This process essentially involves constructing an *ad hoc* concept SOLDIER* that is broader than the lexically encoded concept so as to refer to people with particular attributes associated with those who serve in the army.

Understanding creative metaphor is subject to the same processes of pragmatic adjustment. Nevertheless, creative metaphors are also different; what they communicate is much closer to the indeterminate end of the paraphrasability continuum (Sperber and Wilson 2015). In other words, they convey *non-propositional effects*: different readers may paraphrase them in different ways; there is no single paraphrase that captures all interpretations; they are ‘open-ended’; and they involve the activation of perceptual, emotional or sensorimotor mechanisms (Wilson and Carston 2019: 2).

Perhaps the most comprehensive, at least to date, account of poetic metaphor in relevance-theoretic terms is the one offered by Pilkington (2000), who elaborated on the notion of so-called *poetic effects*. This notion is aimed to capture the

diffuseness, vagueness, and richness of the interpretations we tend to derive from poetry. Although not restricted to metaphor (or even to poetry and literature), poetic effects are derived *par excellence* through creative metaphor. Pilkington defines poetic metaphor in terms of complex thoughts communicated as a wide range of weak implicatures. In other words, poetic metaphors do not communicate a small set of strong implicatures (as is the case with the metaphorical expression “*John is a soldier*” mentioned above), but an array of weak interpretative effects. It is due to the range and indeterminacy of the implicatures derived through its interpretation process that metaphor becomes poetic.

Unlike the standard relevance-theoretic account that treats implicatures as propositional and cognitive effects in terms of propositions, Pilkington aptly points out that such implicatures are essentially *affective* in nature. He is also right in claiming that emotions are temporary physiological, behavioral, and cognitive reactions and therefore they do not qualify for the analysis of poetic effects. His approach attempts to replace the vague notions of “emotions” and “feelings”, which have long been used by poets and literary critics, with the concept of “attitudes”. Drawing on insights from psychology, Pilkington views attitudes as phenomenal memories, or memories with the qualitative aspects of emotional states. Such phenomenal memories refer to long-term affective states, which are attached to conceptual content and are evoked through encyclopedic entries. Their strength and complexity, however, are highly subjective while they also depend on contextual factors.

Although in principle I agree with Pilkington’s suggestion that any explanation of poetic effects needs to account also for affective communication, here I take a rather different approach to affect, which is grounded in the appraisal theory of emotions (Scherer 2005). I specifically suggest that the affective meaning conveyed through metaphor can be better explained in terms of “valence”, i.e. the perceived goodness (or averseness) of events. Valence is one of the dimensions of emotion concepts, together with arousal; novelty; and power/control. Following Scherer’s appraisal theory (2005), I endorse the view that emotions arise from our evaluations, so-called *appraisals*, of events (whether external or internal). It is on the basis of appraisal that people form an affective, or emotional response: a positively evaluated event will give rise to a positive emotion (e.g., happiness) while one that is negatively valenced will render a negative emotion (e.g., anger, sadness, fear). However simplistic this may be, for the purposes of this study it suffices to say that valence judgments quite crudely differentiate stimuli along a scale of positivity vs negativity, thus serving as building blocks for emotions.

As Wilson (2011: 196) puts it, “[d]espite some fundamental differences, relevance theory and cognitive linguistics may be seen as providing complementary rather than contradictory approaches to metaphor”. This possibility will be explored in some detail and in the light of evidence from poetry in the following section.

3. Poetic metaphors of time and affective meaning(s)

First, consider the following poem by Emily Dickinson, titled “Time does go on”:

- (1) *Time does go on* –
 I tell it gay to those who suffer now –
 They shall survive –
 There is a sun –
 They don’t believe it now.

Dickinson’s poem is a prime example of how a conventional metaphorical expression can be contextually rendered poetic. The metaphor “*time does go on*” is an everyday expression that construes the passage of time in terms of physical translocation, in line with the spatio-temporal mappings assumed by conceptual metaphor theorists. In everyday language (or, at least, in a different context) the metaphoricity of this expression would probably go unnoticed, since it is a rather mundane way to talk about the passage of time. Instead, here the cross-domain mapping between space/motion and time needs to be activated for the reader to access the contextual assumptions that are required for interpreting the metaphor. As Tendahl and Gibbs (2008: 1859) point out, “conceptual metaphors should be considered as parts of our cognitive environments” that may become strongly manifest in certain contexts. This is the case also with the time metaphor in Dickinson’s poem. Specifically, in (1) the reader needs to construct a set of contextual assumptions on the basis of the conventional metaphorical expression “*time does go on*”. My suggestion is that the emphatic auxiliary “*does*” that accompanies the metaphor conveys the implicature that time will *certainly* go on. The implicature is further reinforced if one looks at the poem as a whole: the metaphor is intended to offer comfort and consolation to “*those who suffer now*”, since time will eventually alleviate their suffering, no matter how hard it seems for them to believe it now. This invites a further inference: inasmuch as the passage of time is inevitable, the alleviation of pain should also be expected with certain anticipation. Thus, what would normally be considered a commonplace (namely that time goes on) becomes a speech act of reassurance that brings about a prospect of relief.

It thus transpires that, when interpreted in the context of the later lines, the metaphor in (1) communicates hope about the future; in other words, the poetic effects conveyed through this metaphor are positively valenced. The metaphorical meaning is communicated through the contextual assumptions that the poet makes manifest throughout this short poem. It is worth noting that metaphor understanding in (1) does not involve *ad hoc* concept formation as is usually the case; there is no lexical concept that needs to be pragmatically adjusted (i.e., via broadening or narrowing) for the utterance to be understood. However, in line with the relevance-theoretic

account of metaphor, the metaphor's intended meaning in Dickinson's poem differs from its standard meaning: here the metaphor implicates that time will surely keep going by and this will eventually appease the pain felt in the present. The fact that these contextual (i.e., poetic) effects arise from a spatio-temporal expression of the kind abundantly found in everyday discourse enables an interesting observation: the metaphor in (1) does not allow ample leeway for the implicatures that readers will derive, yet the affective meaning it communicates subsumes it in the indeterminate end of the paraphrasability continuum. In other words, the pre-existing conceptual mapping between space/motion and time guides, and constrains, the contextual assumptions derived from the metaphor. The result is that an otherwise conventional metaphor is endowed with novel meaning(s).

The next verses come from the poem "Inferno" by the contemporary Greek poet Alexandros Isaris.¹ This poem also makes use of a spatio-temporal expression that is contextually manipulated so as to yield poetic effects, but the workings of metaphor here are quite different from the previous example:

- (2) Tick tick tick tick
 signaling one two midnight
 when the night is torn apart
 and *time goes by trampling*...
 Tick tick tick tick
 time moves on by trampling

The meaning of the metaphor in (2) is quite straightforwardly colored in a negative way; "*time moves on by trampling*" construes the advent of time as a threat. How is this affective meaning arrived at? The lexical concept TRAMPLING encodes a particular type of motion event that is forceful and even violent and may thus cause damage and/or injury (e.g., "*The kids trampled over the garden flowers*"). However, here the encoded meaning is broadened so as to be predicated not only of human beings but also of time; motion is no longer literal, since time does not literally trample. This amounts to an *ad hoc* concept TRAMPLING*. Following the relevance-guided comprehension procedure, the reader will recover the metaphor's intended meaning by choosing the first and most accessible interpretation. This interpretation is essentially that time is stepping heavily towards us and, by means of inference, it comes across as a threat. In Modern Greek, in which the metaphor in (2) originally appears, the lexical concept TRAMPLING (*ποδοπατό*) encodes negativity, since it implicates that the motion event is likely to bring about casualties. Our encyclopedic knowledge about the aftermath of trampling is activated through the metaphor, thus enabling the affective meaning of time as an enemy. This, of course,

1. The translation of the poem is mine.

pairs with our folk understanding of time as an all-encompassing force and, more specifically, one that cannot be defeated. Finally, stylistic features found in the poem such as repetition and onomatopoeia (“*Tick tock tick tock*”) further contribute to the metaphor’s poetic effects by aligning the heavy steps of time with the rhythmic sounds of the clock hands. In this respect, this example reaffirms Pilkington’s claim (2000: 103) that “[t]he success of a poetic metaphor depends not only (if at all) on its originality, but in the creation of a context which encourages and guides the exploration of the encyclopedic entries of the concepts involved”.

In sum, the affective meaning conveyed through the metaphor in (2) stems from its contextual effects that are retrieved through pragmatically modulating the lexical concept TRAMPLING. What is worth noting is that this metaphor is not entirely novel; ‘trampling’ denotes a motion event, yet one that is not conventionally associated with time. This metaphorical mapping stems from the Time-moving conceptual metaphor, which is extended to a type of motion that denotes manner (note that manner is not typically profiled in everyday expressions of time). The spatio-temporal mapping in (2) attests to what conceptual metaphor theorists call “elaboration” of a conceptual metaphor, i.e. filling in an aspect of the source domain in an unusual way. Although this approach rightly pinpoints the pervasiveness of motion in speaking (even creatively) about the passage of time, it falls short of explaining the particular meaning that is communicated by the metaphor. Rather, the time-space mapping is recruited only to give rise to an affective meaning through an inferential procedure that guides the reader towards achieving relevance.

In the poems examined so far, the metaphors involve a mapping between time and motion. A rather different case is exemplified in C. P. Cavafy’s poem “Candles” (*Κεριά*), which is built around a metaphorical conceptualization of the years as candles. The poem is cited below:²

- (3) *Days to come stand in front of us
like a row of lighted candles –
golden, warm, and vivid candles.*

*Days gone by fall behind us,
a gloomy line of snuffed-out candles;
the nearest are smoking still,
cold, melted, and bent.*

I don’t want to look at them: their shape saddens me,
and it saddens me to remember their original light.

I look ahead at my lighted candles.

2. The translation is by Keeley and Sherrard (1992).

I don't want to turn for fear of seeing, terrified,
how quickly that dark line gets longer,
how quickly the snuffed-out candles proliferate.

This poem recontextualizes a common cultural ritual in Greece (and elsewhere): the candles that are put on birthday cakes symbolize the number of years the birthday person has lived so far. When blowing out the candles, the birthday person celebrates their lived years and welcomes the ones to come.

However, here the metaphorical representation of the years as candles carries over particular affective connotations. The future years are represented as lighted candles:³ “*golden, warm, and vivid*”, all of these adjectives evoking a positive construal. Anticipation of the future is therefore positively colored. Past years, on the other hand, form “*a gloomy line*” of blown out candles that are “*cold, melted, and bent*”. The emotional impact they have on the poet is explicitly stated: “*their shape saddens me*”. Moreover, the gloomy line seems to grow rapidly and this brings only “*fear*” to the poet who is “*terrified*” at their sight. In sum, the years-as-candles metaphor is essentially a way for the poet to express how he feels about the passage of time; he looks forward to the coming days but regrets over the past times and fears that time for him will soon come to an end. Affective valence is negative throughout. The sight of the lighted candles does not suffice to alleviate the sadness over the time that has elapsed and the fear for the imminent event of death.

For the metaphor to be understood, our conceptualization of candles needs to be pragmatically modulated. In this case, pragmatic adjustment involves lexical narrowing, rather than broadening (which is usually the case in metaphorical utterances); the *ad hoc* concept CANDLES* corresponds to the candles on a birthday cake, which are as many as the years one has lived. Standard features of candles, such as light and warmth (or lack thereof) are retained in the metaphor, but, as Sperber and Wilson (1995: 224) have argued, “poetic effects create common impressions rather than common knowledge”. Such impressions here relate to particular affective nuances, which are positive for light and, accordingly, negative for its lack (note also the conceptual metaphors GOOD IS BRIGHT and LIFE IS LIGHT). Light is vital for life, enables vision, and brings about heat and warmth, while its shining and spark are perceived as a source of beauty; likewise, its lack is associated with the

3. One of the reviewers suggested that this is a case of simile, rather than metaphor (“*Days to come stand in front of us/ like a row of lighted candles*”), and therefore it may have to be treated differently in relevance-theoretic terms (Carston and Wearing 2011). In line with Sullivan (2007), I treat simile as similar to any other metaphoric language, the only difference being a “difference in emphasis” (2007: 146) vis-à-vis the metaphorical mapping. The fact that in the following lines of the poem the past days are metaphorically represented as a gloomy line without a lexical marker of simile reinforces this view.

absence of such life-giving features. Conversely, darkness and downward position (“*bent*”) are associated with negative feelings and, not least, death (consider the conceptual metaphors *DOWN IS BAD* and *DEATH IS DARKNESS*). This explains why, in the poem, the lighted candles correspond to the poet’s prospective years, and the blown out candles to the times long gone; future times are happily anticipated, while the remembrance of past years brings about only sadness and regret to the poet. In the case of recent years, their flame is gone but they still emit smoke; yet another sign of extinction. Finally, it should be noted that the metaphor is also rife with imagistic qualities (see Carston 2018), which further contribute to the derivation of non-propositional effects; consider, for example, how the “*melted, and bent*” candles may mentally evoke the appearance of an aged and deteriorating body.

However, this is not the whole story. The metaphorical representation of the years as candles involves certain spatio-temporal features. Firstly, the candles form a line, similar to the sequential order of events along the timeline. Secondly, they are deictically located, in accordance with our conceptualization of the past and the future; the lighted candles lie ahead of the poet and the blown out candles behind him, with those “*smoking still*” being relatively close. Finally, the row of the blown out candles is said to grow “*quickly*”; this alludes to the felt experience of time as passing rapidly as is typically the case for the elderly (Draaisma 2004). All these are knowable features of our conceptualization of time, and are evidently made manifest in the metaphor. A question, then, lingers: do they add to the poetic effects conveyed through the metaphor? To put it differently: is there anything affective communicated via these spatio-temporal features? At first glance, they do not come across as poetic, let alone affective; they seem to be mere manifestations of the culture-specific conceptualization of time. Upon closer inspection, however, affect seems to be much more nuanced.

More specifically, as already mentioned, as one gets older the end of life is felt as fast approaching; this sensation is in itself emotionally loaded with feelings of agony and fear over the expectation of death. It is precisely this sensation that is reflected through the growing line of blown out candles. Moreover, the poet looks toward the candles-as-years that stand in front of him but does not want to turn to the ones that lie behind him. This spatial configuration alludes to the approach and avoidance/withdrawal motivations with which affect is strongly associated (Crawford 2009); the former correlates with positive affect while the latter with negative affect. To put it simply, humans tend to approach whatever they perceive to be pleasant and/or beneficial while they try to distance themselves from anything that looks unpleasant, disconcerting, or even threatening. It is this association that is also exemplified in the poem. In short, in Cavafy’s poem affect is composed of underlying conceptual mappings (related to light/darkness and approach/avoidance), which

are woven into processes of pragmatic adjustment only to activate a constellation of deeply affective and aesthetically powerful meanings.

The poems analyzed so far were aimed to show how speaking metaphorically about time can recruit at once conceptual mappings and processes of pragmatic adjustment. The last metaphor to be examined does not draw on pre-existing mappings of any sort. It comes from the poem “Calmly we walk through this April’s day” by American poet Delmore Schwartz, shown below:

- (4) Each minute bursts in the burning room,
 The great globe reels in the solar fire,
 Spinning the trivial and unique away.
 (How all things flash! How all things flare!)
 What am I now that I was then?
 May memory restore again and again
 The smallest color of the smallest day:
Time is the school in which we learn,
Time is the fire in which we burn.

These lines exemplify yet another case of time metaphor, in particular of the kind that is prototypically considered as poetic: one in which the mapping entertained by the metaphor is entirely novel and largely unexpected. The novel mappings found in these lines are encoded with a copula construction (on metaphor and grammatical constructions see Sullivan 2007): “*Time is the school in which we learn,/ Time is the fire in which we burn*”. Perhaps not accidentally, these time metaphors arise in a highly figurative context and come across as an answer to the question that the poet asks himself: “*What am I now that I was then?*”. In what follows, I will try to explain what is communicated by the metaphors vis-à-vis the poet’s burning existential question.

The metaphors build an analogy between, on the one hand, time and, on the other, schools and fire. The predicates of “*time*” are pragmatically adjusted via lexical broadening so as to accommodate the intended metaphorical meaning; apparently, the metaphors are not about educational institutions and chemical processes of combustion, but about the essentials of living that only time can offer: learning and creating, both lasting until we are utterly consumed by time. To put it differently, the “*school*” stands for the lessons to be learned throughout life while “*fire*” represents the energy that fuels creation. Both are associated with time and, more specifically, with *our* time; namely, the time of our life. This explains the poetic effects that spawn from the metaphorical representation of time as a school and a fire – a representation which, in fact, recasts our folk understanding of time as a source of knowledge and as a driving force for creation. Both features relate

to some of life's greatest gains. But this is not the whole story; fire that drives life is eventually extinguished. The metaphor's overall affective meaning is therefore colored negatively: time will ultimately extinguish us.

Relevance in (4) is achieved through the communication of a wide array of weak implicatures that are made manifest through the metaphorical expressions and the textual patterning in which they are embedded. While interpreting the metaphors in (4), the reader needs to pragmatically modulate the encyclopedic entries of SCHOOL and FIRE (including their affective connotations). However, metaphorical meaning is not limited to its lexical elements. A closer examination of the metaphorical expressions in (4) reveals a particular stylistic pattern, which includes parallelism (i.e., the repetition of the copula construction in two successive lines) and rhyme (/lə:n/ and /bə:n/). Both parallelism and rhyme are literary devices *par excellence*, which establish an iconic link via resemblance (at the syntactic and the phonological level, respectively). This iconic link is not a mere rhetorical feature used by the poet to embellish his verse but rather invites the reader to derive a further array of weakly communicated meanings in response to the poet's question "What am I now that I was then?": time transforms us through all the new knowledge we acquire and all the efforts we make but will ultimately transform us upon death; we learn our lesson over time but our newly acquired knowledge will eventually go away; all knowledge and creation is a waste in the light of death, etc. The list is open-ended; yet all these different weak implicatures seem to boil down to a sense of futility – in other words, negative valence. In line with Sperber and Wilson (2015), the intended import in (4) is vague and cannot be paraphrased as a proposition at all.

Last, but not least, although the focus of this chapter has been on poetic metaphor, as it is already acknowledged by Pilkington (2000), poetic effects are not limited to metaphors. Especially speaking about time lends itself to various figurative expressions that may override metaphor. A case in point is the opening of "Burnt Norton" in T. S. Eliot's "The four quartets":

- (5) *Time present and time past
Are both perhaps present in time future
And time future contained in time past.
If all time is eternally present
All time is unredeemable.
What might have been is an abstraction
Remaining a perpetual possibility
Only in a world of speculation.
What might have been and what has been
Point to one end, which is always present.*

Footfalls echo in the memory
 Down the passage which we did not take
 Towards the door we never opened
 Into the rose-garden. My words echo
 Thus, in your mind.

These lines blatantly subvert what would be considered a normal, or ordinary parsing of reality into past, present, and future; rather, here, all different temporal perspectives seem to be fused into one indistinguishable unity of “*eternally present*” time. There is no doubt that, pragmatically speaking, this passage lies ‘beyond meaning’. It resists paraphrasing even in the form of a range of weak implicatures, or of an affective meaning of some sort. Processing these lines rather invokes constructing a “metaphoric world” in the sense proposed by Levin (1976, 1988). The idea of a metaphoric world suggests that a metaphor (more generally, a figurative expression) reflects the reality of the poet’s felt experience. Such experience is essentially sensory and emotional, and as readers we are invited to modify our conceptualization of the world and switch to this alternative reality that is constituted by metaphorical language. Is this the case also with the poetic metaphors of time previously discussed? They seem to also express the felt experience of time while the rich affective meanings they give rise to further attest to that. Nevertheless, their meaning, however indeterminate it may be, is more conducive to paraphrasing than T. S. Eliot’s lines. In short, it remains open for future research how metaphoric world construction pertains to poetic effects at large, such as the ones triggered by the poetic metaphors of time discussed in this study but also by figurative language of any sort, be it metaphorical or not.

4. Discussion and conclusions

This chapter has aimed to set the ground for what we can tentatively call “a hybrid theory of poetic metaphor”. Building on previous attempts to reconcile insights from Cognitive linguistics and Relevance theory into a coherent framework, I specifically focused on poetic metaphor and suggested that in fact there is a *need* to do so. Poets more often than not exploit conceptual mappings related to time (which served here as a case study), but the meanings they give rise to cannot be reduced to such underlying spatio-temporal patterns: conventional metaphorical expressions can be embedded in a new context and thus acquire a pragmatically enriched meaning (poem 1); they can be elaborated in unusual ways, thus enacting a different, novel construal of time passing (poem 2); they can be recruited in novel, *ad hoc* metaphorical mappings, e.g. between years and candles (poem 3); and, finally, they

can be completely overridden in entirely new metaphorical expressions (poem 4). This small sample is nevertheless representative of the diversity vis-à-vis poetic metaphor, thus allowing for two empirical observations regarding literariness at large: (a) literariness relates, if anything, to poets being creative *with* metaphor rather than to metaphor being creative in itself (whatever this may be); and (b) what counts as literary is a matter of degree, with considerable variation in terms of indeterminacy (note that the metaphor in (4) is evidently more indeterminate compared to the one in (1)). I consider these assumptions to pertain to both theoretical approaches and thus to lay the groundwork for an integrated theory of poetic metaphor.

The analysis of the four poems in this chapter has shown that poetic metaphor gives rise to affective meanings. This idea is, of course, not new. As Sperber and Wilson (1995: 224) have noted, “[u]tterances with poetic effects can be used precisely to create this sense of apparently affective rather than cognitive mutuality”. The analysis put forward here, however, differs from previous accounts in two important ways.

The first one relates to how affect is defined. Although I agree with Pilkington (2000) that encyclopedic entries may have to be extended so as to encompass an affective component (see also Needham-Didsbury 2016), I find his notion of “attitudes” quite obscure and vague, hence not suitable for a *pragmatic* account of metaphorical meaning. The inferences that arise from poetic metaphor, I argue, are conceptually akin to valence judgments; they do not resonate with long-term affective dispositions or states (like attitudes) and are also far from being fully-fledged emotion concepts. They are rather *ad hoc* enunciations of affect, which enact a valenced conceptualization of time and its passage. The reader is invited to unveil such affective inferences, but how he does so hinges on the pragmatic processes involved. This relates to the second line of the argument presented here.

With respect to metaphor theory, I have shown that poetic metaphors of time are often bound to the routine ways of speaking about time, which draw on the domains of space and motion. But I have also aimed to demonstrate that, when utilized by the poet, spatio-temporal mappings lend themselves to contextual effects, which translate into affective meanings. In order to do justice to such emergent meanings, we need to resort to a pragmatic theory of utterance interpretation. Relevance theory qualifies for this purpose, since it considers non-propositional meanings as an essential component of verbal communication and offers a comprehensive account of how receivers decipher them while acknowledging that the list of possible inferences is far from being exhaustive; this is a corollary of the indeterminacy of meaning that is associated with poetic metaphor. The analysis put forward in this study suggests that spatio-temporal mappings, when present, facilitate the contextual assumptions required for metaphor understanding and thus contribute to the affective meaning(s) communicated by the metaphor. Although

this account outlines the comprehension processes that enable understanding poetic metaphors of time, it is by no means aimed to be conclusive; readers may entertain highly idiosyncratic metaphorical readings, including variable affective responses. In Pilkington's words (2000: 164): "[a]ffect is vague, subjective, and perhaps even epiphenomenal". The beauty of poetic metaphor resides precisely in the diffuseness and open-endedness it affords, which a cognitive theory of metaphor needs to account for.

Last, but not least, despite its merits this synergy is not without limitations. As acknowledged by Tendahl and Gibbs (2008) and Wilson (2011), there are fundamental differences between cognitive linguistics and relevance theory in terms of their background assumptions vis-à-vis metaphor and linguistic meaning at large; such differences relate to the questions of whether metaphor pertains to language *and* thought, and whether linguistic meaning is embodied or amodal. Although findings are far from being conclusive, poetic metaphor, I believe, can open a new window to the study of these issues. If the idea of constructing a metaphoric world via figurative language is on the right track, does this entail that metaphor is grounded in sensory and emotional experience and, upon interpretation, is perspective-shifting? These questions remain open for future research.

References

- Carston, Robyn. 2018. "Figurative Language, Mental Imagery and Pragmatics." *Metaphor and Symbol* 33 (3): 198–217. <https://doi.org/10.1080/10926488.2018.1481257>
- Carston, Robyn. 2010. "Metaphor: *Ad hoc* Concepts, Literal Meaning and Mental Images." *Proceedings of the Aristotelian Society* 110: 295–321. <https://doi.org/10.1111/j.1467-9264.2010.00288.x>
- Carston, Robyn. 2002. *Thoughts and Utterances: The Pragmatics of Explicit Communication*. Oxford: Blackwell. <https://doi.org/10.1002/9780470754603>
- Carston, Robyn, and Catherine Wearing. 2011. "Metaphor, Hyperbole and Simile: A Pragmatic Approach." *Language and Cognition* 3 (2): 283–312. <https://doi.org/10.1515/langcog.2011.010>
- Clark, Herbert H. 1973. "Space, Time, Semantics, and the Child." In *Cognitive Development and the Acquisition of Language*, ed. by Timothy E. Moore, 28–63. New York: Academic Press.
- Crawford, Elizabeth L. 2009. "Conceptual Metaphors of Affect." *Emotion Review* 1 (2): 129–139. <https://doi.org/10.1177/1754073908100438>
- Draaisma, Douwe. 2004. *Why Life Speeds Up as You Get Older: How Memory Shapes Our Past*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511489945>
- Fauconnier, Gilles, and Mark Turner. 2002. *The Way We Think: Conceptual Blending and The Mind's Hidden Complexities*. New York: Basic Books.
- Fauconnier, Gilles, and Mark Turner. 2008. "Rethinking Metaphor." In *The Cambridge Handbook of Metaphor and Thought*, ed. by Ray Gibbs, 53–66. New York: Cambridge University Press. <https://doi.org/10.1017/CBO9780511816802.005>
- Haspelmath, Martin. 1997. *From Space to Time: Temporal Adverbials in the World's Languages*. Munich: Lincom Europa.

- Keeley, Edmund, and Philip Sherrard. 1992. *C. P. Cavafy: Collected Poems*. Princeton, NJ: Princeton University Press.
- Lakoff, George. 1993. "The Contemporary Theory of Metaphor." In *Metaphor and Thought*, 2nd ed., ed. by Andrew Ortony, 202-251. Cambridge: Cambridge University Press.
<https://doi.org/10.1017/CBO9781139173865.013>
- Lakoff, George, and Mark Johnson. 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.
- Lakoff, George, and Mark Johnson. 1999. *Philosophy in the Flesh*. New York: Basic Books.
- Lakoff, George, and Mark Turner. 1989. *More Than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: University of Chicago Press.
<https://doi.org/10.7208/chicago/9780226470986.001.0001>
- Levin, Samuel R. 1976. "Concerning What Kind of Speech Act a Poem Is." In *Pragmatics of Language and Literature*, ed. by Teun A. van Dijk, 141-160. Amsterdam: North Holland Publishing.
- Levin, Samuel R. 1988. *Metaphoric Worlds. Conceptions of a Romantic Nature*. New Haven: Yale University Press.
- Needham-Didsbury, Isabelle. 2016. "Interpreting Metaphor: Perspectives from Pragmatics and Psychotherapy." PhD diss., UCL.
- Núñez, Rafael, and Eve Sweetser. 2006. "With the Future behind Them: Convergent Evidence from Aymara Language and Gesture in the Cross-Linguistic Comparison of Spatial Constructions of Time." *Cognitive Science* 30: 401-450. https://doi.org/10.1207/s15516709cog0000_62
- Pilkington, Adrian. 2000. *Poetic Effects: A Relevance Theory Perspective*. Amsterdam: John Benjamins. <https://doi.org/10.1075/pbns.75>
- Radden, Günter. 2006. "The Metaphor Time as Space Across Languages." In *Metonymy Metaphor Collage*, ed. by Elżbieta Górka, and Günter Radden, 99-120. Warsaw: Warsaw University Press.
- Radden, Günter. 2011. "Spatial Time in the West and the East." In *Space and Time in Language*, ed. by Mario Brdar, Marija Omazic, Višnja P. Takac, Tanja Gradecak-Erdeljic, and Gabrijela Buljan, 1-40. Frankfurt: Peter Lang.
- Scherer, Klaus R. 2005. "What Are Emotions? And How Can They Be Measured?" *Social Science Information* 44 (4): 695-729. <https://doi.org/10.1177/0539018405058216>
- Sperber, Dan, and Deirdre Wilson. 1995. *Relevance: Communication and Cognition*. 2nd ed. Oxford: Blackwell.
- Sperber, Dan, and Deirdre Wilson. 2002. "Pragmatics, Modularity and Mindreading." *Mind and Language* 17: 3-23. <https://doi.org/10.1111/1468-0017.00186>
- Sperber, Dan, and Deirdre Wilson. 2008. "A Deflationary Account of Metaphors." In *The Cambridge Handbook of Metaphor and Thought*, ed. by Ray Gibbs, 84-105. Cambridge: Cambridge University Press.
- Sperber, Dan, and Deirdre Wilson. 2015. "Beyond Speaker's Meaning." *Croatian Journal of Philosophy* 15 (2): 117-149.
- Sullivan, Karen. 2007. "Grammar in Metaphor: A Construction Grammar Account of Metaphoric Language." PhD diss., UC Berkeley.
- Tendahl, Markus. 2009. *A Hybrid Theory of Metaphor: Relevance Theory and Cognitive Linguistics*. London: Palgrave Macmillan. <https://doi.org/10.1057/9780230244313>
- Tendahl, Markus, and Ray Gibbs. 2008. "Complementary Perspectives on Metaphor: Cognitive Linguistics and Relevance Theory." *Journal of Pragmatics* 40: 1823-1864.
<https://doi.org/10.1016/j.pragma.2008.02.001>

- Traugott, Elizabeth Closs. 1978. "On the Expression of Spatio-Temporal Relations in Language." In *Universals of Human Language*, vol. 3, ed. by Joseph H. Greenberg, 369-400. Stanford: Stanford University Press.
- Wilson, Deirdre. 2011. "Parallels and Differences in the Treatment of Metaphor in Relevance Theory and Cognitive Linguistics." *Studia Linguistica Universitatis Jagellonicae Cracoviensis* 128: 195-213. <https://doi.org/10.2478/v10148-011-0025-1>
- Wilson, Deirdre, and Robyn Carston. 2019. "Pragmatics and the Challenge of 'Non-propositional' Effects." *Journal of Pragmatics* 145: 31-8. <https://doi.org/10.1016/j.pragma.2019.01.005>

An experiential view on what makes literature relevant

Louis de Saussure
University of Neuchâtel

It's a common intuition that literature is a special kind of language use, pursuing other aims than the mere transmission of information. This intuition is reflected in the notion that literature is art, whereas ordinary conversation is not, and that reading literature is a particular sort of experience, significant in a particular way. However, the common view in pragmatics is that literary works are not exceptional in terms of how language is used. In this paper, I discuss this issue by exploring Sperber and Wilson's (2015) notion of 'impressions' and develop a tentative account of literature as triggering relevant imaginative experiences. These experiences, I argue, relate to expressivity and to affective, emotional, effects; they match readers' expectations of relevance by means of their resonance with the individual's own memories and imaginative experiences.

Keywords: literature, art, emotional effects, impressions, experiential imports, metacognitive acquaintance, expressives, procedural meaning, ineffability

(...) On peut se représenter [la] pensée comme un organisme dont l'intelligence logique forme l'ossature ; les muscles et les nerfs, ce sont nos sentiments, nos désirs, nos volontés, toute la partie affective de notre esprit ; (...) sans ce système nerveux et musculaire de la pensée, l'intelligence pure n'est plus qu'un squelette.
(Charles Bally, *Le langage et la vie*)

1. Introduction

Scholars usually consider literature a form of communication, which seems perfectly rational: after all, with literature, an author conveys pieces of information by means of a text, artful as it may be (see for example Sell 2000; 2011; Jucker and Locher 2017; Phelan 2011; 2017). Phelan (2011: 56) suggests that literature is a 'communicative event' in the sense that a literary work is "a rhetorical action in

which an author addresses an audience with a certain aim". In this paper, we suggest that what takes place in literature is particular in terms of how it can be called 'communication' and how literary works may achieve relevance.

The complexities of the 'effects' of literary works, from syntactic to lexical choices, from figures to textual devices, aiming at picturing in subtle ways the whereabouts and the psychology of characters, the long-time effects of recurring tropes and modalities of conveying meaning and opening to rich arrays of inferences and impressions, have been investigated with much insight within cognitive pragmatics (see Trotter 1992; Green 1993; Pilkington 2000; Kolaiti 2015; 2020; Cave 2016; Cave and Wilson 2018 *inter alia*). In this trend of research, there seems to be a general agreement that literature is communication in the usual sense, but at the same time that literature provides original sorts of imports for the reader.

While nothing strictly formal clearly distinguishes literary works from other forms of language use¹ (*contra* Hamburger 1957; Weinrich 1964 *inter alia*), it remains that literary works do share common properties, perhaps more or less strongly represented across works, that make them special not only in terms of belonging to the category of artistic works, but, more down-to-earth, in terms of communication. In this paper, we'll explore within a cognitive pragmatic background how literary works are specific in terms of addressees' (readers') experiences.

The notion that literature is a form of communication where what is at stake is 'experiential' is not original: it is indeed a common assumption that readers enjoy new experiences by imagining what the characters go through, by putting themselves in the character's shoes, i.e. by means of identification (Mar and Oatley 2008). In a way, literature enables readers to have experiences 'by procuration'. This is pretty much what novels, but certainly modern poetry, is largely about, and this is widely acknowledged by contemporary literary criticism (see Lombardo 2013 for example).

In this paper, we attempt at accommodating this intuition within cognitive pragmatics. One issue in this respect is how experiential responses, which we consider non-propositional, are apt to satisfy the reader's expectations of relevance. In the course of our discussion, we relate such experiential impressions to affective effects as developed in Wharton and Strey (2019) and de Saussure and Wharton (2020).

The notion that individuals go through particular experiences in processing communication is not foreign, nor new, in cognitive pragmatics. Kolaiti (2015; 2020), drawing both on Sperber and Wilson's (1995[1986]) relevance theory and on neuroscientific research, brings about an enlightening notion of 'perceptual effects' that she associates with literature and more generally with art. Perceptual effects trigger responses from the senses, which involve the sensorimotor system and are relevant to the organism inasmuch as they operate changes in its sensorimotor

1. As Jakobson remarked. See Werth (1976); Green (1993).

organisation. Insightfully, she mentions that these effects are ‘experienced’.² Clearly, such sorts of experiences are key elements of what an author aims at triggering, besides passing on information. Fabb (this volume) develops a notion of ‘experiences of ineffable significance’ about the feelings of epiphany experienced by readers; again, arguably, these feelings are not reducible to informative contents and still belong to the sort of communication that takes place in literary works: sharing impressions, immersing the reader in a particular experience.

One might wonder at this point whether our concern for experientiation does not lie beyond the scope of pragmatic theories, for the reason that what a reader goes through after understanding has occurred might simply not belong to the realm of communication but rather to that of personal psychological lives. However, if we take seriously the assumption that authors expect that events of experientiation occur in their reader’s mind, then it’s fair to ask ourselves how these events, delivering imports for the reader, fit within pragmatics.

We take as starting points two important quotes by Sperber and Wilson (2015) about types of imports conveyed in communication, which, we suggest, call for further elaboration. They first remark that:

(...) as a result of the communicator’s behaviour, the addressee may experience a certain change in his cognitive environment, and identify this change, or part of it, as something the communicator intended to cause in him and to have him recognise as what she intended to communicate. In this case, what is needed (...) is neither enumeration nor description, but merely metacognitive acquaintance.

(Sperber and Wilson 2015: 140)

Discussing the notion of ‘impressions’ and looking at Shakespeare’s metaphor ‘Juliet is the sun’, they further say:

(...) the intended import of “Juliet is the sun”, as of so many creative metaphors, is best described as an array [of propositions] that the audience identifies not by enumeration but by metacognitive acquaintance, by attributing to the communicator’s intention what they *mentally experience*.

(Sperber and Wilson 2015: 147, our emphasis)

This paper draws upon these remarks and suggests that they can be extended to account for what literature is quite generally about: having the addressee experience situations and impressions. In a novel, displaying how characters are going through situations doesn’t make a reader only look for information; more importantly it directs the reader to figure out spontaneously *what it is like* to go through the kind

2. A notion of unexpectedness and originality are traditionally associated with experiencing literary works (for example in Attridge’s 2017 notion of ‘experiencing originality’) but Kolaiti’s notion of perceptual effects narrows down such intuitions to clear cognitive processes.

of situations depicted; readers have appraisals and affective reactions (emotions, feelings), which are intimate psychological experiences.

Our only reservation with regard to the last quote above is about the idea that the readers will attribute “to the communicator’s intention what they mentally experience”. We will thus start, in what follows, by discussing this and confronting literature to the common definition of communication in post-Gricean pragmatics. In section 3, we develop a notion of experiential communication, and turn in section 4 to the question of the relevance of experiential imports. Section 5 discusses the notion that experiential impressions relate to procedurality in language and section 6 is dedicated to how the principle of relevance can work in this picture.

2. General considerations on literature, communication and pragmatics

Communication has many forms. Within the Gricean tradition, communication is conceived of as involving informative intentions on the part of the Communicator, who aims at the recovery of her intentions by the addressee, on the basis of a stimulus. The addressee performs this recovery by decoding the linguistic form and spontaneously applying pragmatic principles which enable him to draw inferences, up to a point where the information obtained matches an optimal equilibrium between informativity (cognitive effects, in the terms of Sperber and Wilson’s 1995 [1986] relevance theory) and processing complexity (cognitive effort). When this threshold of relevance is met, the addressee assumes that the information retrieved corresponds to the message intended by the Communicator, who, in turn, has packaged the stimulus in such a way that she can expect the proper recovery of her informative intentions by the addressee.³

In everyday conversations, as well as in a large number of other cases such as newspaper articles, scientific reports etc., the usual situation is that indeed the Communicator figures out the inferences to be drawn by the addressee and shapes her stimulus in a way that satisfies the addressee’s presumption of relevance. As a result, the Communicator can expect her meaning intentions to be appropriately recovered by the addressee so that her message is passed on.

Arguably, for this to happen, the Communicator must know the message she intends to convey; otherwise, it’s uneasy to see how she might shape a (linguistic) stimulus with the aim of having her informative intentions appropriately recovered. Yet this knowledge may happen to be more or less precise and determinate, so that the inferences actually drawn by the addressee may depart from the original intended message in various ways. Since the inferences drawn may depend more or

3. The addressee does not access the actual intentions of the Communicator, but rather raises an assumption about what she might plausibly have had the intention to convey.

less strongly upon individual circumstances, i.e. the cognitive environment of the addressee, they may lead them towards imports that have not been predicted by the Communicator. The mere existence of misunderstandings is a clear symptom that communication occurs in such a way that the Speaker has an awareness of what she intends to convey, explicitly or implicitly: otherwise, there is no comparison to hold between what has been understood and what was intended to be conveyed. Similarly, in principle if an addressee doesn't understand something in an argumentative interaction, the communicator is presumably capable of explaining her point, therefore she, of course, knows her meaning intentions.

This is trivial, but we'd like to notice in this regard that no such try is obvious nor necessary with literary works; what is more, it would be odd to speak of 'misunderstandings' when it comes to poems and literary works. It's not clear at all that authors systematically foresee the effects that their work will have. These elements lead us to question the notion that literature is a case of communication in the classical sense, that is, the recovery of meaning intentions on the basis of ostensive stimuli. The obvious notion that interpretations of literary works, in particular about their significance for a specific reader, are indeterminate and dependent upon the individual circumstances, personal history, emotions and mental state of the addressee at the moment of reading, make it unlikely that the recovery of meaning intentions is the core of the process of getting an import from a literary work. But in turn, this suggests that the author of a novel doesn't necessarily have in mind clear-cut notions about the imports that will be raised; as Wilson (2018) notes:

Not all the import of a literary work may be equally manifest to both writer and reader at a given time, (...) different parts of it may become more or less manifest to different readers at different times, and (...) some of the responsibility for constructing a satisfactory overall interpretation may lie with the reader as well as the writer. (Wilson 2018: 188)

This applies both at the micro-level of utterance understanding and the macro-level of the significance of a literary work to an individual.⁴

4. This is rather obvious for the 'macro-level' (the significance of a particular work as a whole for a particular individual reader) but the same holds to a large extent at the micro-level too: innumerable examples are available where the choice of a specific form give rise to rich effects and it's probably right to say that the author herself doesn't have a clear awareness of the range of effects so produced (see for example Trotter 1992 about the placement of an adjective in a novel by Katherine Mansfield, or Bollens 2018 about the repetition of a specific lexical item (the verb *se trainer*) in a novel by Flaubert, etc.) On this difference between the meaning of utterances (micro-level) and the signification of a particular work (macro-level), Wilson says: "an author may be simultaneously performing ostensive acts on two levels: a lower-level act of describing a fictional world, and a higher-level act of showing this world to the reader as an example of what is possible, or conceivable" (Wilson 2018: 202).

Whereas in the canonical case of face-to-face interaction, and in other genres such as scientific papers or newspaper articles, the addressee intuitively hopes to match as much as possible his interpretation with the real intended message of the Communicator, in literary texts readers don't seem to actually seek to answer the question of what the author means by her work. Rather, readers elaborate freely their imports without consideration for what the author might actually intend, and the impressions raised by the work in their mind are assumed as indifferent *vis-à-vis* any real intention by the author.

As readers of a literary work, we activate something different than propositional meanings, in surplus of them; we suggest that we retrieve dispositions from long-term memory in order to echo our own past experience with the situations depicted and imagine what it is to be part of such situations, or to be a direct, real, witness of them – and we can't imagine these things without some anchor in our own personal past experience. The relevance of a literary work depends thus on several factors, including the individual reader's skills to compute literary complexities and identify cues to the *locus* of particular interpretive effects,⁵ but for what interests us most here, it includes some correspondence with what the reader has gone through in real life.

These processes of retrieving imports from literary works amount to having experiences, in particular to experiencing 'impressions', and, we suggest, affective effects. As long as, of course, we accept the notion that stories narrated in novels serve another purpose than to describe the mere succession of events; that the import of theatre plays is more than representing situations for their own sake; that the import of poems is wider than the propositional meanings they bear, complex as they might be sometimes. This view converges with the notion that such effects are subjective: they are about the particular representations that the reader raises and the connections he makes with all sorts of aspects of his personal experience.

Our assumption is that the reader searches for intentional meanings by the author only at the objective-propositional level, i.e. relatively to the situations depicted. But when it comes to the subjective impressions, the reader is not looking, even unconsciously, for what the author *aims* at. What the author does is predict some of the impressions that her work might raise in some readers' minds, as a potentiality of her work which may well be a driving force for writing; but readers on their part don't wonder about what the author aims at having them experience.

5. Obviously, the format of literary writings directs the attention of the reader so as to get specific interpretive effects. As Wilson and Carston (2019: 34) put it: "In language use, departures from expected syntax, wording or prosody (...) also provide possible cues to ostension, focusing attention on particular aspects of the ostensive act and encouraging a search for additional interpretive effects."

They simply experience what is sound to them. Reading literature is thus something intimate, individual: readers of *Madame Bovary* do not monitor their impressions with regard to what Flaubert might have intended them to experience, or at least not in the way the addressee of an ostensive sigh seeks to understand what impression the Communicator aims at conveying intentionally.

3. Literature as experiential communication

The mental processes that raise new psychological experiences in the readers' minds do not have to do only with simulating oneself as part of a situation of the sort which is depicted, i.e. with putting oneself in a character's shoes. Simulation of characters certainly happens, but the simple witnessing of scenes does trigger emotional reactions that should count as imaginative experiences. Let's take two quick examples.

Most readers, arguably, are moved by the unjust treatment of the child Jane Eyre by her adoptive family. This emotion can happen through several, possibly combined, processes. First, the reader may simulate the child's mind and react to the injustice. This is probably not the usual way things happen, but some degree of such simulation may very well happen with a younger reader for example. The experiential effects occur probably more often when a reader reacts to the unjust situation that he witnesses, as if he were internally part of the situation but still external to the child's mind (notably by figuring out through resources of epistemic vigilance elements that adults are more likely to represent, such as covert motivations other adults in the story have when acting in particular ways that impact the lives of other characters). Also, independently of any simulation at all, the representation of an injustice elicits emotions *per se*. A reader thus doesn't need to put himself in Jane's shoes to get an experiential import from the scene.

A reader of *L'éducation sentimentale* might well go through some simulation of Frederic's mental states in those anguishing situations he finds himself dropped into, and Free Indirect Speech is certainly central to such effects. But he might as well catch the author's subtle irony in depicting Frederic's somewhat exaggerated emotive reactions, etc. Such irony is of course inaccessible to the mind of the character and can be felt only by being external in some way.

In sum, experiential imports do not necessarily involve something like identification with a character. Various processes (simulation of a character, simulation of oneself in the situational context, simulation of the narrator's perspective, non-simulative reactions to scenes...) are certainly not mutually exclusive. Moreover, a reader may well combine several of these processes together. Through such combined effects, which in turn combine with proper 'cognitive' effects about what happens and what inferences can be drawn as anticipating assumptions, the reader

goes through an immersive effect which involves, crucially, the raising of affective reactions to the situations so experienced. These layers of experiential simulations and appraisals form an imaginative experience which goes way beyond the propositional grasping of stories or descriptions. The events and impressions depicted match something in the reader's mind which is more about psychological attitudes, values, humanly reactions, etc. rather than about the computation of factual worldly notions.

As much as the reader of a newspaper article is attracted *a priori* by the prospect of gaining informational import, the reader of literature is attracted by the prospect of new imaginative experiences. Crucially, as we develop further down, as much as a reader of a newspaper article expects to be able to make links, inferentially, between the new pieces of information and what they already know, the reader of literature expects to be able to relate the situations depicted to their own personal, intimate, psychological life and make a better sense of them. This might be the substance of Sperber and Wilson's (2015) notion of a 'metacognitive acquaintance'.

Such processes enable readers to imagine new experiences of life, which they never had an occasion to live in reality. In order for these experiences to have a significance for readers, they must offer a mental, psychological outcome. They must therefore share two properties: they must echo, be it to a small extent, real experiences lived by the reader, i.e. they must anchor on preoccupations and / or activate memories, and they must be original in some way either, i.e. they must activate to some degree the resources of creative imagination. Situations that offer nothing new will wipe away interest and be considered trivial; situations that echo nothing in the memories or preoccupations of the reader will be felt irrelevant, uninteresting to them. For example, children too young to have an interest in adult love and relationships won't be much interested in novels describing such situations.

Thus, literature provides the means to share human experiences in a way that the mere conveyance of propositional information can't achieve.⁶ Yet the cognitive dimension is certainly not put into brackets or evacuated. Not only (at least most) affective states require forms of informational triggers (Deonna and Teroni 2012) but inferences are also drawn on the basis of non-propositional elements, through a processes of analyzing them. For example, irony as an attitude is descriptively ineffable (de Saussure and Schulz 2009) but the fact that one is being ironical is propositional knowledge and can feed all sorts of inferences. Also, literary texts can clearly make points, which are propositional, in a quite similar way. For example, in Aesop's or La Fontaine's *Fables*, the situation depicted gives rise to evaluations and

6. It is well known in psychology that reading literature has various sorts of positive impacts on the psychology of readers (see Pennebaker 2000 for a survey); arguably, this impact is more bound to experiential effects than to plain cognitive ones.

conclusions, i.e. they are illustrative of some point made. In such fables, the story, arguably, is so developed that it raises non-propositional effects that will put the addressee in a mood to accept more easily the point, although not through a rational, descriptive reasoning only, but rather through ‘peripheral’ processing (Cosmides and Tooby 2000) or by taking the story as a heuristic for the epistemic strength of the moral. The epistemic decision to accept the point is thus not anchored on a strict argumentation but on the psychological response one has towards a happy or unhappy story. For example, a notion of undesirable outcome can be represented by a scene that triggers some type of experiential reaction, not an argument. This reaction is in such cases bouletic: it is about desirable or undesirable experiences, and the reader judges the story as such by referring to a notion of what it is to be in the situation depicted. Propositional meaning is intertwined with non-propositional, experiential, effects: they feed each-other during the comprehension process.

4. Experiential imports and relevance

The accounts of pragmatic meaning that belong to the intellectual posterity of Paul Grice share a number of key assumptions, among which that communication presupposes intention, and that semantic decoding does not exhaust the speaker’s intentional meaning. Sperber and Wilson’s (1986/1995) *relevance theory* develops a powerful line of arguments supporting semantic underspecification and early inferential processes guided by universal cognitive principles. Relevance theory assumes that what language provides in itself is a logical structure – which organises syntactically and semantically raw conceptual information –, which undergoes a pragmatic process of disambiguation, referential saturation and enrichment, so that an explicit meaning emerges as an assumption made by the addressee about what contents the Speaker aims at rendering manifest to him in the first place. In parallel, the addressee raises assumptions about implicatures, which are derived as propositions. Since many possible pragmatic contents are derivable in the utterance’s circumstances, two elements guide the process: a twofold principle and an overarching cognitive ability. The twofold principle is that (i) a communicative stimulus carries the presumption that it is optimally relevant, i.e. worth the processing effort, and (ii) that optimal relevance is reached when the most informational meaning possible is obtained while the smallest possible processing effort is spent. The cognitive ability is *mindreading*, i.e. the ability to use Theory of mind processes. Relevance theory holds a general view of human cognition, taken to be ‘geared towards relevance’ for evolutionary reasons: such a way to go about information enables humans to be ‘fast and frugal’ (in Gigerenzer’s 2004, 2008 terms) in their management of their limited resources. Understanding occurs when decoding has

been completed by inferences providing pragmatic enrichments and implicatures. ‘Inference’ is often viewed as a propositional device only, but if we take ‘inference’ to be whatever activity of the mind that starts from an input and operates changes in the mental state as output, then there is much more falling in the scope of the notion of inference than propositional reasoning. Mental heuristics are thus inferential, and, for what is of interest to us here, non-propositional mental activity that starts with an input and ends-up with an output is inferential too.

Readers immerse in the novel, grasp the psychology of characters, feel emotions, and are offered new perspectives on the world through their ability to construct experiential simulations, raise emotions about them, to the measure of their interest for the situations depicted. Among the building blocks of these experiential constructs lies the notion of having non-propositional, ineffable, ‘impressions’ from them, in the sense of Sperber and Wilson (2015).

A typical example of impressions is given by poetic, figurative, effects. Even though they are widespread in ordinary language use and often serve no particular non-propositional purpose, poetic effects found in poetry proper, in particular creative metaphors, often work in such a way as to raise impressions. Looking at Baudelaire’s poem *Moesta et errabunda*:

Free man, always you will cherish the sea!
The sea is your mirror; you contemplate your soul
In the infinite unrolling of its wave
And your mind is not a less bitter gulf

(Baudelaire, *Moesta et errabunda*. our translation)

One interprets propositions, but if deprived of its nebulous, largely ineffable, impressions, the verses would completely lack relevance: they would fail to echo anything in the readers’ mind or to activate anything imaginative. Just as implicit meanings provide relevance to utterances, impressions give relevance to the poem. Here, impressions are about something like a comparison between human freedom and the powerful indifference of nature, and the anxiety of reflecting upon one’s own freedom; but it is not a comparison that amounts to clear propositions only: it raises ‘impressions’ that can’t be paraphrased without dramatic loss. ‘Relevance’ is an evaluation by the addressee and has a flavour of reward: reaching the threshold where some import (over)compensates for the effort of processing gives a feeling of a resolution, perhaps a (somewhat moderate) sort of epiphany. In the present case, the poem offers a feeling of relevance to the addressee when the latter feels impressions that give a sense of worthiness about the reading. We hold that such impressions are experienced in the sense that they need to resonate with the individual existing memorial traces of related experiences and with imaginative abilities.

Sperber and Wilson's (2015) account for Romeo's "Juliet is the sun" as follows:

With a poetic metaphor such as "Juliet is the sun", the intended import is still vaguer, and is not paraphrasable as a proposition at all. This is again a case of meaning, since all the evidence for the intended import is indirect, but it is closer to the 'indeterminate' end of the paraphrasability continuum.

(Sperber and Wilson 2015: 123)

Their suggestion is that impressions are 'arrays of weakly manifest propositions'. In essence, this means that there isn't one single proposition, nor a clear set of propositions, that corresponds indisputably to what "Juliet is the sun" is meant to convey. Rather, the propositions conveyed are *more or less manifest* and thus form an indeterminate 'array' whose actual content and organisation depend upon the personal cognitive environment of the reader, i.e., the assumptions at their disposal, which may serve as contextualising elements that provide relevance to the individual. Yet, if impressions are 'arrays of propositions', then impressions are composed of (more or less accessible and manifest) *propositions*. But *having an impression* amounts to experiencing arrays of propositions or experiencing changes in the manifestness of such arrays (Sperber and Wilson 2015); this in turn causes feelings of 'metacognitive acquaintance' with the author to arise eventually. Arguably, impressions are experiential imports that deal with echoing, reviving or imagining experiences. There would be with impressions something comparable to how expressive meaning adds key elements on the basis of something propositional (somewhat as an interjection like *ouch!* adds a surplus of meaning by comparison to the truth-conditional *It hurts!*).⁷ In that stronger sense, impressions are not only arrays of weakly manifest propositions: they activate a parallel mechanism of raising psychological states that are closer to feeling something than to representing something and computing propositions, even though sharing impressions may happen by means of representations. We believe that the notion that individuals *share* impressions, as Sperber and Wilson (2015) mention in passing, is about this very process of raising emotional experiences, in turn establishing a sense of metacognitive acquaintance. As the reader at this stage has understood, we argue that the experiential sort of meaning one finds in literary works belongs to the same general kind as emotional, affective effects described in Wharton and Strey (2019) and de Saussure and Wharton (2020).

7. On interjections, see Wharton (2003); Blakemore (2011); Wharton (2003); Kleiber (2016).

5. The procedurality of experiential impressions

A notion of *sharing* intuitively appeals to a form of attitude involving a notion of similarity between the individuals regarding what is shared – experiences in our case – and give a sense of commonality between them; on the contrary, the notion of *communicating* is abstract and related only to (intentional) information. Propositions are represented but shared impressions are not; they are processed, we suggest, procedurally. If this is correct, then there might be something essentially ‘procedural’ in how we revive experiences that make literature significant to us readers.

At this stage, a precision is needed: whereas *emotions*, *feelings*, *impressions*, and *simulations of experiences* are all different in various respects, once evoked in a human interaction, they all belong to the same family of ‘non-propositional’ mental states and to the domain of procedurality rather than declarativity. Emotions have temporal boundaries and have identifiable causes; feelings are affects without necessarily identifiable causes and temporal boundaries; impressions are perhaps sorts of affects that are based on vague, indeterminate representations; simulations of experiences are projections that render the ‘feel’ of situations; they all share the property of being procedural rather than declarative.

There are plenty of examples – and a considerable scholarship discussing them – that sustain a distinction between two major types of knowledge: ‘declarative’ and ‘procedural’. Declarative knowledge is about what that can be explained propositionally, and about which one may have epistemic attitudes. Procedural knowledge on the contrary is about types of knowledge that cannot be described but that are acquired by personal experience (and typically further replicated). The notion of declarative knowledge is connected to propositions, while procedural knowledge is about ‘know-hows’, i.e. competences (Ryle 1986 [1949]). A common example is knowing how to ride a bicycle: one cannot explain how to ride a bicycle precisely enough for the addressee to ride successfully based upon explanations only. One has to make their own experience of riding, first with hesitations and failures, until they acquire the practical, procedural knowledge, to the full.⁸

Procedural information is activated in language in a variety of ways. The notion of procedurality within relevance theory, which has a precursor in Ducrot’s (1984) notion of ‘instructional’ expressions, was introduced by Blakemore (1987) to account for expressions that do not encode concepts but instructions on how to deal

8. Not all know-hows are procedural in the specific sense above. For example, cooking a meal by following the steps of a recipe, dealing with a computer to achieve a specific task according to given instructions or finding one’s way according to an itinerary, are not procedural in that particular sense, even though they are procedural in a wider sense of the word, i.e. involving instructional steps. They are not cognitively procedural.

with the concepts in presence (typically, discourse connectives, but various sorts of procedural elements of language have been discussed in the abundant literature dedicated to procedurality since then).⁹ They encode these instructions as sorts of procedural algorithms that return specific values. The semantics of procedural expressions is considered ‘descriptively ineffable’, i.e. impossible to paraphrase adequately with propositions (Blakemore 2011). We’d like to stress here that a number of elements belonging to the domain of ‘procedural meaning’ have directly to do with the expression of emotional, affective and attitudinal mental states. Irony for example is not descriptively paraphrasable (de Saussure and Schulz 2009), neither are expressives in the sense of Wharton (2003) and emotional effects (Wharton and Strey 2019; de Saussure and Wharton 2020). In our view, the reactivation of the traces left by personal experiences in memory, and the creation of imaginings about new possible experiences, resorts to procedural, not declarative, mental activity. In sum, in the domain of procedurality, one finds not only procedural expressions proper, but also emotional, affective effects and in particular those having to do with experiencing in the sense discussed above. They all share the property of descriptive ineffability.

In language use, such effects can occur either ‘directly’, with expressives or for example when attitudes stem from ironical utterances, or ‘indirectly’, when some description, some story, triggers some emotional reaction in surplus of their procedural meaning. Indeed, a piece of declarative information, either passed on directly by an action of showing, or indirectly by processing the propositions communicated by the speaker by means of an utterance, leads not only to a process of understanding (grasping the intended message) but possibly also to a procedural experiential, emotional response.

Expressives illustrate this point. The utterance of “It hurts” is a propositional description and as such activates the declarative domain of representations. But it may also activate an affective response relating to one’s own experience of what kinds of feelings arise when it hurts in the particular way represented by the utterance in the circumstances. As a matter of comparison, the utterance of “Ouch!” necessarily and immediately activates an experiential response on the part of the hearer, about what it is to have that sort of feelings which triggers the exclamation “Ouch!” (and is thus quicker to activate a behavioural response; see Wharton 2003 for a discussion). From the stimulus “Ouch!”, the propositional notion that ‘it hurts’ is accessed by means of activating the emotional effect of feeling pain *first*. In other words, ‘It hurts’ is an inference drawn on the basis of expressive “Ouch!”, which triggers first and foremost a rapid experiential response about what it is to

9. See Escandell-Vidal and *al.* (2011).

feel hurt. “Ouch!”, arguably, is procedural in the sense that it activates experiential circuits while “It hurts” is declarative in the sense that it activates a propositional computation. Both can convey meanings belonging to the other dimension, but secondarily, either as entailments (if one shouts ‘Ouch!’ then it hurts) or as emotional inferences (if one says ‘It hurts’ then they feel ‘ouch!’). Language serves obviously both aims of communicating declarative, propositional, information, and of sharing experiences and other non-propositional mental states. When a speaker utters “Ouch!” they share the experience of being hurt, while when they utter “It hurts”, they communicate the information that they are hurt. The access to the experience of being hurt, in turn, opens potentially a whole range of propositional inferences; conversely, the propositional, declarative, knowledge that someone is hurt, potentially opens to emotional, affective, effects. The relation between these kinds of imports is bidirectional, as finely observed by Bally (1965[1923]).

Communicating, in the narrow technical sense, is about intentionally building a mutual cognitive environment: it’s about managing an interaction so that interactants ultimately get awareness of the facts represented by the propositions, facts that are deemed to belong to both cognitive environments of the Speaker and the addressee. Sharing, we suggest, is about intentionally giving awareness of situations and of how situations are experienced, what feelings they raise, what psychological consequences they have. Literature, we argue, is primarily about this: taking advantage of the experiences of others, subtly elaborated in the fictional worlds evoked by the literary work or skilfully given to perceive in poetry with all the creativity of the poet who provides new perspectives on impressions, new ‘positive perceptual effects’ as Kolaiti (2015) puts it.

In what sense should we say, now, that ‘experiential imports’ produced by literary works are ‘procedural’? Well, there are actually two sides of this coin. First, since experiences are somewhat felt, their nature is not propositional-declarative, they are not beliefs, they have no, or not only, epistemic strength, and thus they resort to the domain of impressions and affective states, which are procedural. But there is another dimension to the procedurality of experiential effects: they are constructed from elements of correspondence between what is displayed and experiential bits in the reader’s memory which are gathered in order to construct imaginatively new such experiences, enabling readers to simulate these new situations as their own, so to say. These ‘experiential bits’ are ‘dispositions to believe’ from which, procedurally, new representations are obtained, from which new experiences can arise.

6. Applying the principle of relevance to experiencing impressions

The advantage of sharing impressions is not only to enhance our procedural, experiential knowledge, or to speed up the process of understanding by attracting attention (de Saussure and Wharton 2020), but also to realize that humans share similar experiences and give a sense of kinship among them, readers, authors, characters (perhaps as a result of the ‘metacognitive acquaintance’ mentioned by Sperber and Wilson 2015). Sharing personal, often intimate and emotional, experiences with others, help individuals realize the commonality of human lives and take advantage of the experiences of others, real or imaginary, for future behaviour or for interpreting past experiences of their own. This is why a notion of *sharing* impressions is so crucial to our eyes and so different than that of communicating propositional meanings. Intuitively speaking, such things are eminently relevant to the (interested) reader.

A question at this stage is thus how the principle of relevance might be still at work with experiential effects, since the technical notion of ‘relevance’ plays typically on cognitive, propositional, effects.

We suggest that in this case, the threshold where addressees match mental effect with mental effort is determined by the impact of our personal experiential simulation on our mental states. The process is three-fold:

1. The reader gets a propositional understanding of the utterances themselves.
2. From there, a sense of significance to the reader is, or not, raised inasmuch as the effect of the reading triggers a rich experiential response that compensates for the processing effort.
3. Possibly, but not necessarily, the experiential response invites further considerations and reflections, that appear to the reader as a general import of the literary work.

(1) is trivial. (2) is, if we are correct, a key part of what makes literature what it is, from a pragmatic viewpoint. (3) is roughly what happens when “ouch!” triggers a propositional notion that ‘it hurts’ – *mutatis mutandis*: it’s about raising propositional effects on the basis of non-propositional ones.

Consider for a minute the relevance of descriptions. Descriptions are interesting only inasmuch as we feel an incentive for immersion, for having a sense of what it is to be in that particular physical environment. The effects of descriptions, their relevance, are not restricted to what they are propositionally: their relevance has to do with how they participate to an enhanced experiential moment of immersion.¹⁰

10. Non-literary descriptions don’t (necessarily) do this; for example describing the shape of a sofa in a shop for practical reasons (shall we be able to put it in the car?) is obviously deprived of such a dimension (and is certainly not a literary description).

With experiential effects of the kind that arises in literature, the author's ability to predict the nature and richness of the experiential response is limited.

A certain novel will be considered more or less meaningful by readers but will also be felt 'stronger' by some, 'weaker' by others. By 'strong' one means influential on one's own perceptions of life. A novel can be felt more relevant to one's personal life, and less relevant by others depending on whether they feel it more or less influential; the context where these impressions are raised is our own personal history as humans, with which some particular literary work will resonate more than some others. If we are right that children are less likely to be interested in novels about adult relationships, this is because they have less experiential material available to find a resonance of such novels with regard to their own experience of life, hence they won't have expectations of experiential relevance. We process the globality of a literary work up to a threshold of compensating effects which varies across individuals according to their personal psychological experience of life. It's not essentially about propositions, nor arrays of more or less manifest propositions that can't be put into full words, but about mental states that do not directly bear on truth. Literary works achieve optimal relevance through a process which feedback is emotional and which is, very simply, the sense of enjoyment, gravity, bitterness etc., one gets out of it. This being said, again, from these impressions we do eventually draw inferences that enable us to better adapt to the situations one may encounter in life, or to find explanations for our own previous behaviours, which we had not thought of before.

In sum, a way to put this is to say that literary works achieve optimal relevance when the experiential effects – the resonance of the story, perceptions, affects etc. – of one individual reader are commensurate with the efforts invested in processing the work.

This picture fits with the fact that literary works have a direct import in the psychological lives of individuals in many respects: going through experiential replicas triggered by the literary work up to what is relevant to a reader may reflect on their own attitude relatively to the issues displayed, regardless of any real original author's intention. And when an author manages to give us a non-trivial perceptual effect (Kolaiti 2015), that is, a new perception of the world, we indeed have access to new imaginative experiences, not propositions. Such new perceptions are in a sense representations that bear with our expectations some discrepancies that are "outside the normal range" of usual discrepancies; Fabb (this volume) suggests that such discrepancies "have a role in causing experiences of ineffable significance".¹¹

11. According to Fabb (*ibid.*), such discrepancies are one source of ineffable experiences among others, like empathy. He argues that empathy, just like discrepancies, cause an unexpected matching of representations between the self and the other. Note in passing that the notion of discrepancy, at various levels, is central to many approaches to style in literature.

In a way, if this is correct, literature is not just one among other uses of language. Rather, provocative as it may seem, it makes use of relevance-searching abilities in a very down-to-earth, pre-propositional, way, with the aim of sharing experiences and thus enabling others to take advantage of the procedural knowledge offered by literary works. Perhaps this might lead to relating literature – probably the most sophisticated kind of language use – to the contributions of very simple expressives like ‘Ouch!’ or even to the cries of pre-linguistic infants.

7. Conclusion

In this paper, we started with considerations by Sperber and Wilson (2015) and suggested that the import of literary works, as such, has more to do with experiencing impressions and situations than with descriptive propositional meanings only. We suggested a way to look at these experiential imports within relevance theory by suggesting that their relevance is obtained depending on whether the experiential subjective response by the reader is significant enough, based on the reader’s own personal memories and imagination.

There are obviously a number of limitations to the present proposition. In particular, there are very different kinds of literary works, and what we suggested here may not apply to all; reason for which we tend not to endorse here a notion of ‘literature’ as a clear-cut specific category of language use. Also, we admit that much of what we have suggested in this chapter needs to be confirmed experimentally. Also, the respective properties of ‘affective mental states’, ‘impressions’, ‘experiential response’ need closer attention so that these labels don’t lead to confusions. The relationship between declarative-propositional and procedural meanings in configurations involving impressions calls for precisions too.

The picture we offer here can be articulated with the abundant works of literary theorists about the ‘social sharing of emotions’ in literature (in particular the numerous works by Patrizia Lombardo on the topic, see Lombardo 2013) and of psychologists on the effects of literature, which, obviously, can’t be explained by propositional meaning only (Schaeffer 2015; Pennebaker 2000 among many others), opening to new research where these elements are taken seriously within contemporary pragmatic theories.

References

- Attridge, Derek. 2004. *The Singularity of Literature*. New York: Routledge.
<https://doi.org/10.4324/9780203420447>
- Bally, Charles. (1965) 1923. *Le langage et la vie*. 3rd ed. Geneva: Droz.
- Blakemore, Diane. 1987. *Semantic Constraints on Relevance*. Oxford: Blackwell.
- Blakemore, Diane. 2011. "On the Descriptive Ineffability of Expressive Meaning." *Journal of Pragmatics* 43 (14), 3537-3550. <https://doi.org/10.1016/j.pragma.2011.08.003>
- Bolens, Guillemette. 2018. "Relevance Theory and Kinesic Analysis in *Don Quixote* and *Madame Bovary*." In *Reading Beyond the Code: Literature and Relevance Theory*, ed. by Terence Cave, and Deirdre Wilson, 53-70. Oxford: Oxford University Press.
- Cave, Terence. 2016. *Thinking with Literature*. Oxford: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780198749417.001.0001>
- Cave, Terence, and Deirdre Wilson, eds. 2018. *Reading Beyond the Code: Literature and Relevance Theory*. Oxford: Oxford University Press.
<https://doi.org/10.1093/oso/9780198794776.001.0001>
- Cosmides, Leda, and John Tooby. (2000) 2008. "Evolutionary Psychology and the Emotions." In *Handbook of Emotions*, 3rd ed., ed. by Michael Lewis, and Jeannette Haviland-Jones, 91-115. New York: Guilford.
- Deonna, Julien, and Fabrice Teroni. 2012. *The Emotions: A Philosophical Introduction*. London: Routledge. <https://doi.org/10.4324/9780203721742>
- Ducrot, Oswald. 1984. *Le dire et le dit*. Paris: Minuit.
- Escandell-Vidal, Victoria, Manuel Leonetti, and Aoife Ahern, eds. 2011. *Procedural Meaning: Problems and Perspectives*. *CRI&PI*. Bingley: Emerald. <https://doi.org/10.1163/9780857240941>
- Gigerenzer, Gerd. 2004. "Fast and Frugal Heuristics: The Tools of Bounded Rationality." In *Blackwell Handbook of Judgment and Decision Making*, ed. by Derek J. Koehler, and Nigel Harvey, 62-68. Oxford: Blackwell. <https://doi.org/10.1002/9780470752937.ch4>
- Gigerenzer, Gerd. 2008. "Why Heuristics Work." *Perspectives on Psychological Science* 3 (1): 20-29. <https://doi.org/10.1111/j.1745-6916.2008.00058.x>
- Green, Keith. 1993. "Relevance Theory and the Literary Text: Some Problems and Perspectives." *Journal of Literary Semantics* 22: 207-217. <https://doi.org/10.1515/jlse.1993.22.3.207>
- Hamburger, Käte. 1957. *Der Logik der Dichtung*. Stuttgart: Klett.
- Jucker, Andreas, and Miriam Locher. 2017. "Introducing Pragmatics of Fiction. Approaches, Trends and Developments." In *Pragmatics of Fiction*, ed. by Andreas Jucker, and Miriam Locher, 1-24. Amsterdam: John Benjamins. <https://doi.org/10.1515/9783110431094-001>
- Kleiber, Georges. 2016. "Du cri de douleur au signe de douleur: l' interjection 'Aïe'" *Synergies Pays Scandinaves* 11/12: 113-133.
- Kolaiti, Patricia. 2015. "The Poetic Mind: A Producer-Oriented Approach to Literature and Art." *Journal of Literary Semantics* 44: 23-44. <https://doi.org/10.1515/jls-2015-0005>
- Kolaiti, Patricia. 2020. "Perceptual Relevance and Art: Some Tentative Suggestions." *Journal of Literary Semantics* 49: 99-117. <https://doi.org/10.1515/jls-2020-2022>
- Lombardo, Patrizia. 2013. "Empathie et simulation." In *Empathie et Esthétique*, ed. by Alexandre Gefen, and Bernard Vouilloux, 1-15. Paris: Hermann.
- Mar, Raymond A., and Keith Oatley. 2008. "The Function of Fiction Is the Abstraction and Simulation of Social Experience." *Perspectives on Psychological Science* 3: 173-92.
<https://doi.org/10.1111/j.1745-6924.2008.00073.x>

- Pennebaker, James W. 2000. "Telling Stories: The Health Benefits of Narrative." *Literature and Medicine* 19 (1): 3-18. <https://doi.org/10.1353/lm.2000.0011>.
- Phelan, James. 2011. "Rhetoric, Ethics, and Narrative Communication: Or, from Story to Discourse to Authors, Resources, and Audiences." *Soundings* 94 (1/2): 55-75.
- Phelan, James. 2017. *Somebody Telling Somebody Else: A Rhetorical Poetics of Narrative*. Columbus: Ohio State University Press. <https://doi.org/10.2307/j.ctv15rt209>
- Pilkington, Adrian. 2000. *Poetic Effects: A Relevance Theory Perspective*. Amsterdam: John Benjamins. <https://doi.org/10.1075/pbns.75>
- Ryle, Gilbert. (1949) 1986. *The Concept of Mind*. Chicago: University of Chicago Press.
- de Saussure, Louis, and Tim Wharton. 2020. "Relevance, Effects and Affects." *International Review of Pragmatics* 12 (2): 183-205. <https://doi.org/10.1163/18773109-01202001>
- Schaeffer, Jean-Marie. 2015. *L'expérience esthétique*. Paris: Gallimard.
- Sell, Roger. 2000. *Literature as Communication*. Amsterdam: John Benjamins. <https://doi.org/10.1075/pbns.78>
- Sell, Roger. 2011. *Communication Criticism. Studies in Literature as Dialogue*. Amsterdam: John Benjamins. <https://doi.org/10.1075/ds.11>
- Sperber, Dan, and Deirdre Wilson. (1986) 1995. *Relevance, Communication and Cognition*. Oxford: Blackwell.
- Sperber, Dan, and Deirdre Wilson. 2015. "Beyond Speaker's Meaning." *Croatian Journal of Philosophy* 15 (44): 117-149.
- Trotter, David. 1992. "Analysing Literary Prose: The Relevance of Relevance Theory." *Lingua* 87: 11-27. [https://doi.org/10.1016/0024-3841\(92\)90023-C](https://doi.org/10.1016/0024-3841(92)90023-C)
- Weinrich, Harald. 1964. *Tempus. Bescprochene une Erzählte Welt*. Stuttgart: Kohlhammer.
- Werth, Paul. 1976. "Roman Jakobson's Verbal Analysis of Poetry." *Journal of Linguistics* 12: 21-73. <https://doi.org/10.1017/S0022226700004795>
- Wharton, Tim. 2003. "Interjections, Language and the 'Showing'/Saying' Continuum." *Pragmatics and Cognition* 11 (1): 39-91. <https://doi.org/10.1075/pc.11.1.04wha>
- Wharton, Tim. 2016. "That Bloody So-and-so Has Retired: Expressives Revisited." *Lingua* 17: 20-35. <https://doi.org/10.1016/j.lingua.2015.08.004>
- Wharton, Tim, and Claudia Strey. 2019. "Slave to the Passions: Making Emotions Relevant." In *Relevance: Pragmatics and Interpretation*, ed. by Robyn Carston, Billy Clark, and Kate Scott, 253-266. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290593.022>
- Wilson, Deirdre. 2018. "Relevance Theory and Literary Interpretation." In *Reading Beyond the Code: Literature and Relevance Theory*, ed. by Terence Cave, and Deirdre Wilson, 185-204. Oxford: Oxford University Press.
- Wilson, Deirdre, and Robyn Carston. 2019. "Pragmatics and the Challenge of 'Non-propositional' Effects." *Journal of Pragmatics* 145: 31-38. <https://doi.org/10.1016/j.pragma.2019.01.005>
- Wilson, Deirdre, and Dan Sperber. 1993. "Linguistic Form and Relevance." *Lingua* 90: 1-25. [https://doi.org/10.1016/0024-3841\(93\)90058-5](https://doi.org/10.1016/0024-3841(93)90058-5)

Humorous means, serious messages

A relevance-theoretic perspective on telling jokes to communicate propositional meaning

Agnieszka Piskorska

University of Warsaw

Drawing on the observation that speakers may use jokes as stylistic devices to communicate propositional meanings, this paper offers a relevance-theoretic account of pragmatic mechanisms involved in this kind of communication, dubbed ‘meaningful jokes.’ First, I argue that the comprehension of any joke not only relies on the hearer’s background knowledge, but may also lead to the modification of beliefs. Then I explore selected forms of expression which potentially bear affinity to meaningful jokes, such as fiction, metaphors, allegories, and irony. Finally, I postulate that meaningful jokes rely on a unique propositional attitude and emergent implicatures resulting from the incongruity between the joke’s scenario and a real-life situation in which it was intended to be relevant.

Keywords: humour, jokes, propositional meaning, fiction, allegory, metaphor, irony, emergent implicatures, propositional attitude

1. Introduction

It has been noted by a number of researchers that apart from its definitional purpose of amusing the audience, humour can fulfil interpersonal, social, or directly informative functions in a conversation (e.g. Mulkay 1988; Oring 2003; Martin 2007; Kuipers 2008; Ziv 2009; Dynel 2018). Most of these works assume or state that such effects hinge on using humorous formulations and would not be achieved, or at least not to the same extent, via a different linguistic signal.

Using humour for communicating propositional meanings seems to be best served by conversational witticisms, drawing on various linguistic techniques for conveying humorousness (Norrick 2003; Dynel 2009). However, as was amply discussed by Oring (2003, ch.7), jokes can be used as glosses to the ongoing conversation, presenting the speaker’s opinion and/or enabling her to manage the social

dynamics of the situation. Oring (2003) observes that the very act of telling a joke amidst an otherwise non-humorous conversation does not suffice for making this joke a gloss, if it is merely topically related to that conversation. One of his authentic examples (Oring 2003: 86–87) portrays academics chatting casually about The Lenin Mausoleum in Moscow and a visit to Poland (two unrelated topics), which led one of the participants to cracking a joke about Lenin's visit to Poland. The narrator of the joke did not have any communicative intention beyond amusing the hearers with a fairly intelligent joke that happened to be connected to what they were talking about. On the other hand, a speaker can tell a joke which is not necessarily topically related to a current exchange, but which overtly encourages the audience to explore possible analogies between the joke's content and moral, and the ongoing talk, in this way elevating the gloss quality of the joke to its primary function. For example, on the many occasions when I heard the old joke about a poor Jew who inhabited a tiny apartment with his wife and six children, and who complained to the rabbi about not having enough space to live, and who was advised first to buy a goat, and then to sell it after a few weeks in order to appreciate how happy he was before buying the goat, this joke was intended to communicate to the audience some implicatures along the lines "I began to appreciate situation X only when I experienced Y"; "When this extreme situation took place, I started looking at things differently", etc.

This chapter focuses on the latter case, i.e. telling a joke as a means of conveying propositional import, with the view to providing a relevance-theoretic account of this form of expression. As an ostensive-inferential approach to human communication and cognition (Sperber and Wilson 1986/95), relevance theory appears to be a highly promising framework for describing pragmatic mechanisms that enable the audience to establish relevance of a joke reaching beyond making sense of the punch-line against the background of the set-up. To meet this objective, in section 2 I present a synthetic overview of the extant relevance-theoretic accounts of joke comprehension. Then, in section 3 I explore the similarities and differences between jokes used to communicate propositional content and selected forms of expression which seem to bear some affinity to such jokes. Section 4 offers an analysis of two authentic cases in order to verify the model proposed in section 3. Concluding the chapter, section 5 indicates how this study is situated among other relevance-theoretic work dealing with less determinate aspects of communication.

2. Understanding and enjoying jokes – a relevance-theoretic perspective

Researchers applying the relevance-theoretic model to humour subscribe to the idea that understanding a joke relies on resolving incongruity between the expectations raised by the set-up of the joke and the punch-line.¹ They also link the process of building and resolving incongruity directly with the inferential processes taking the decoded linguistic form as input and yielding the full-fledged speaker-intended meaning as output. Such processes apply to all instances of ostensive-inferential communication and can be broken down into those contributing to the explicit meaning (disambiguation, reference resolution, ad hoc concept construction, and other – see Wilson and Sperber 2004), and those contributing to implicatures. For illustration, consider example (1) below:

- (1) There was a blonde who just got sick and tired of all the blonde jokes. One evening, she went home and memorized all the state capitals. Back in the office the next day, some guy started telling a dumb blonde joke. She interrupted him with a shrill announcement, “I’ve had it up to here with these blonde jokes. I want you to know that this blonde went home last night and did something probably none of you could do. I memorized all the state capitals.” One of the guys, of course, said “I don’t believe you. What is the capital of Nevada?” “N,” she answered.

It can be noticed that in (1) the pivotal pragmatic mechanism connected with the recovery of the explicit content is the disambiguation of the word “capital.” Initially, it is inferentially disambiguated as “capital city,” but when the punch-line comes, it becomes apparent that the sense intended by the narrator (and the blonde character) corresponds to “capital letter.” According to Yus (2003, 2013), jokes may exploit all of the inferential processes, with the set-up of the joke creating expectations about outputs of these processes, and the punch-line invalidating these expectations. Apart from exploiting disambiguation, (1) additionally relies on incongruity between implicatures conveyed by the set-up, e.g. “The blonde character was capable of an intellectual achievement,” and those supported by the punch-line, e.g. “She only proved the stereotype.”²

1. The notion of incongruity, introduced into philosophy in the 18th century by James Beattie (Morreall 2009) was taken up by Suls (1972), who gave it a cognitive orientation, and then followed and developed by the majority of humour scholars (see e.g. Yus 2016 for an overview).

2. Some types of humour may rely on specific kinds of incongruity. For instance, witty sayings tend to exploit incongruity on the implicit level (Curco 1996).

Inferential processes leading to the entertainment of incongruity and its resolution are prompted by the availability of background assumptions, classified by Yus (2013) as two broad types: make-sense frames and cultural frames. The former are associated with the joke's scenario: the mention of "memorizing" makes the meaning of "capital city" highly accessible to the audience, because this is what people often learn by heart for various reasons, whereas the latter are connected with information shared by members of a culture: the presence of a female blonde character and the mention of "blonde jokes" activates the stereotype of a silly blonde. The central idea of Yus's (2013) Intersecting Circles Model that the frames not only provide background information necessary for understanding jokes, but also actively affect the outcome of inferential processes (by being more or less accessible to the audience) is of key importance for the topic dealt with by this chapter: if the assumptions being part of the frames are used as premises in the comprehension process, then the outcome of this process may also have impact on these assumptions, for instance by reinforcing or undermining them, as the strength of premises used in the comprehension process is likely to be affected by its outcome (cf. Sperber et al. 2010).

The connection between jokes and the hearer's mental representation of the world – known in relevance theory as the cognitive environment – is also backed by postulates put forward by Jodłowiec (1991, 2015), according to whom the humorous effect capitalizes on a wide array of weakly implicated assumptions, made available by the punch-line. In the case of (1), such weak implicatures could potentially include "What seems obvious can still be misunderstood," "People cannot overcome their limitations," "Effort does not always pay off," "Many dumb people deserve their reputation," and so on. As can be seen, such implicatures reach beyond the basic grasp of what went wrong with the blonde's memorizing "the capitals."³ By this token, implicatures conveyed by a joke can modify the hearer's cognitive environment in the same way as implicatures resulting from processing non-humorous utterances, even if the primary function of the former is to amuse the hearer. Quite often, even when the narrator of a joke does not have a specific informative intention to convey, she is well aware of the possible inferences encouraged by the joke.

The relevance-theoretic studies of jokes presented above have important implications for an account of jokes as carriers of intentionally communicated meaning. As is apparent, jokes necessarily draw on the assumptions stored in the hearer's cognitive environment and potentially modify this environment, if the implicatures obtained in the processing of the punch-line are retained in the hearer's memory.

3. Piskorska and Jodłowiec (2018) argue that for a joke to be at least potentially amusing to an addressee, s/he should grasp the weak import brought by the punch-line, which typically requires familiarity with relevant cultural frames (Yus 2013).

3. The relevance of fiction and tropes vs. jokes

Having noted that scenarios of jokes are linked to the interlocutors' cognitive environments to the extent significantly exceeding what is necessary for incongruity resolution, the next step on the path to describing the comprehension process of jokes used to express speaker's meaning (henceforth 'meaningful jokes' for short) is to scrutinize them against the background of other forms of expression utilized to convey the speaker's intention in a non-literal or otherwise non-straightforward manner. The objective of this scrutiny is to establish which relevance-theoretic tools are the most suitable for providing an account of meaningful jokes.

First of all, it has to be observed that jokes, being little narratives, bear affinity to literary works. Both genres can be potentially interpreted for what Wilson (2018) calls internal and external relevance, with the former appertaining to the scenario or plot itself, and the latter to the hearer's cognitive environment. Needless to say, *War and Peace* and the blonde joke from the previous section will make markedly different contributions to the recipient's cognitive environment in terms of both the number and importance of implications, yet the mechanism involved in the two cases will be similar. Citing previous work (Sperber and Wilson 1987), Wilson (2018) explains that authors of literary texts perform ostensive acts on two levels: the level of describing the fictional world, corresponding to internal relevance, and the level of showing this world to the audience as an example of what could possibly happen, corresponding to the external relevance. According to Sperber and Wilson (1987), the latter type of relevance typically involves strengthening or reorganizing the reader's existing assumptions rather than obtaining new implications, in this way creating (an illusion of) a bond with the author. If jokes do not carry any specific informative intention and are interpreted for external relevance (cf. Oring's 2003 'topical relevance'), they are also likely to achieve it through strengthening or reorganizing old assumptions, as evidenced by the potential implications of (1) listed above. However, if the speaker has a specific communicative goal in mind, the joke may contribute some new implications tying its moral with the hearer's situation at hand.

Wilson (2018) suggests that the same pragmatic mechanism, i.e. performing a communicative act on two levels, can also operate in allegory – another form of speech resembling jokes in that the hearer is encouraged to draw some relevant conclusions from a short narrative seemingly about 'something else.' The recovery of the two (or more) layers of meaning conveyed by allegory is also addressed by Unger (2017), who posits that the relevance-theoretic comprehension procedure (Wilson and Sperber 2004: 613) has to be applied two (or more) times. Unger's solution is based on the observation that in allegory the literal meaning is relevant in its own right, parallel to the allegorical meaning. From the perspective of the present

considerations, the two-level-communicative-act approach seems to be more viable for jokes than the reapplication-of-the-comprehension-procedure approach, as the assumptions drawn from the hearer's cognitive environment trigger the operation of the inferential processes spontaneously and automatically as the joke's narrative unfolds. The two-level-communicative-act mechanism could be also operative in proverbs, which resemble both allegories and meaningful jokes.

One of Unger's (2017) points about allegory is that it requires a distinct treatment from extended metaphor, since in the latter only the figurative meaning is intended. However, there does not seem to be a clear qualitative difference between some examples of allegories and extended metaphors. Consider, for instance, the allegorical "You can't put the toothpaste back in the tube" (Deirdre Wilson's example discussed by Unger 2017) vs. the arguably metaphorical "You can't feed on strawberries and champagne all your life", which also appears to have a salient, albeit irrelevant, literal interpretation. A crucial difference between the two utterances thus lies in that the latter gives rise to a wider array of weak and fairly indeterminate implicatures and not necessarily in distinct interpretive paths.

If that is the case, then the pragmatic mechanisms postulated for the comprehension of extended metaphors may too shed some light on what is going on in meaningful jokes. On the view advocated by Carston (2010) and Carston and Wearing (2011), extended metaphors are comprehended via a metarepresentational route, with the hearer exploring the implications of the literal meaning, at the same time being aware that this meaning is not asserted. Interestingly, one of the reasons for postulating this interpretative mechanism for extended metaphors was the intuition that the literal meaning is more actively involved in understanding extended metaphors than compact metaphors.⁴ An alternative approach is offered by Wilson (2018), who posits that extended metaphors are processed in the same way as compact metaphors, i.e. via construction of ad hoc concepts. On Wilson's view then, utterances constituting extended metaphors can be true or false (i.e. they fall under descriptive use of language – Sperber and Wilson 1986/95, ch.4.7), and the intuition concerning the significance of the literal meaning is best explained in terms of the salience of the linguistic form, i.e. the ostensive stimulus giving rise to the intended interpretation.

Analysing the implications of the two alternative proposals would go way beyond the scope of this chapter. It can be however noted that the idea of metarepresentational route of processing has some allure for meaningful jokes (whether or not it is operative in extended metaphors), as they are not communicated as assertions or true stories. This, in turn, brings to the fore the affinity between jokes

4. See Sperber and Wilson (2008) for the standard relevance-theoretic approach to metaphor.

and irony,⁵ which in the relevance-theoretic framework is described in metarepresentational terms as a use of an utterance to echo (i.e. express an attitude) to a representation attributed to someone else than the speaker at the time of speaking (e.g. Sperber and Wilson 1986/95 ch. 4.9; Wilson 2006, Wilson and Sperber 2012). At first glance, then, it could be surmised that both in ironies and meaningful jokes the speaker produces an utterance (or text) without endorsing the propositional meaning of this utterance or text, but intending this meaning to be interpreted in virtue of its resemblance to some other representation – what Sperber and Wilson (1986/95 ch.4.7) refer to as interpretive use of language, in contradistinction to descriptive use mentioned above. The key to interpretive use often lies in propositional attitude under which an utterance/text is embedded. The category of attitudes characteristic of ironic utterances is known as “dissociative” (see the references above), and covers the whole range from hostility to mild mockery. This does not carry over to jokes: first, if jokes are indeed like fiction in that the speaker uses them as an example from which the hearer can draw relevant implications, the attitude must not be that of dissociation, and second, the attitude in jokes is not as conspicuous as it is in irony. On the other hand, meaningful jokes do not work exactly in the same way as fiction, i.e. as representations of what could happen in a possible world, as their inherent absurdity and illogicality marks their departure from reality. Weighing all these partially conflicting observations together, I suggest that meaningful jokes should be seen as embedded under a specific propositional attitude, which is to a large extent playful, but at the same time tinted with the speaker’s commitment. In other words, this attitude could be described as located near the playfulness end on a continuum of attitudes ranging from playfulness to endorsement, with an element of the latter being motivated by the analogy to fiction. By this token, meaningful jokes rely mostly on interpretive use of language with some admixture of descriptive use. The proportion of these ingredients varies from case to case, and may be difficult for the hearer to infer. It may also be left intentionally indeterminate by the speaker.

Let me now return to metaphor to explore another analogy between metaphors and jokes, namely the reliance on juxtaposition of two unrelated concepts, domains or scripts. This analogy, mentioned in Aristotle’s *Rhetoric*, has led some modern researchers to investigating similarities and differences between humorous incongruities and those exploited by metaphors, mostly to establish what conditions have to be met for a metaphor to be amusing (see Müller 2015 for an overview). The thread that I would like to pursue here concerns communicative effects stemming

5. The affinity of humour and irony has been widely discussed (see e.g. Dynel 2013 for an overview and a neo-Gricean analysis, and Piskorska 2014 for a relevance-theoretic analysis of humorous ironies).

from such incongruities. As far as metaphor is concerned, it was observed that the juxtaposition of the vehicle and tenet can give rise to what is known as emergent properties, i.e. inferences that cannot be merely transferred from the vehicle to the tenet because they are absent from the characterization of the vehicle. A relevance-theoretic treatment of emergent properties is offered by Wilson and Carston (2007), who discuss examples such as “Robert is a bulldozer”, where despite the fact that real bulldozers are not stubborn or insensitive, the property of being (extremely) stubborn or insensitive is predicated upon an individual named Robert. Wilson and Carston argue that hearers are capable of working out emergent properties when processing the vehicle and tenet in a context of assumptions that prompt such inferences. Guided by the standard expectations of relevance, the hearer will not be satisfied by an interpretation that does not bring about sufficient positive cognitive effects to offset the processing cost – the condition which in the case of many metaphorical utterances will be met only by emergent properties.

Moving to jokes, it is first necessary to determine on what level humorous incongruity of the kind required to produce emergent implications resides. Since the focus is here on the interplay between a subset of the hearer’s cognitive environment and the joke’s content, it is on this plane that the incongruity in question should be sought rather than on the set-up vs. the punch-line plane. For instance, the poor Jew and goat scenario mentioned in Introduction is incongruous with any of the situations in which I have attested its use for communicative purposes, such as the situation of a scholar who felt so overburdened with work that he could not find any motivation to even start doing anything, until he received yet another request for a review. Drawing on the analogy to emergent properties in metaphor comprehension, it is postulated here that this kind of incongruity – the clash between the assumptions brought forth by the joke’s scenario and those pertaining to the hearer’s situation about which the speaker intends to voice a gloss – gives rise to emergent implicatures.⁶ Like emergent properties in metaphors, emergent implicatures could not be conveyed only by the joke’s scenario, being the analogue of the metaphor vehicle, since such a scenario does not include any assumptions related to the real-life situation at hand. Using a meaningful joke to convey this kind of implicatures, the speaker may “merely expect to steer the thoughts of the audience in a certain direction” (Sperber and Wilson 1986/95: 60), as these inferences tend to be weak. This in turn brings us back to Jodłowiec’s (1991, 2015) postulates that the way jokes achieve relevance for the hearer involves weak communication.

This section has looked upon meaningful jokes together with other forms of communication to which they appear to be similar in some relevant respects.

6. Solska (2012) also uses the term “emergent meanings” when discussing implicatures resulting from the joint processing of the two meanings of a punning expression.

Scrutinizing the analogies and differences between meaningful jokes and literary works, allegory, metaphor and irony, it was concluded that the key interpretive mechanisms include propositional attitude assignment, enabling the hearer to identify the speaker's attitude as "playful with a pinch of speaker's commitment," and the construction of emergent implicatures resulting from the incongruity between the joke's scenario and the real-life scenario upon which the joke is intended to make a comment.

4. What jokes tell us about the work of a physicist and the dangers of social media

In this section two authentic examples of meaningful jokes will be analysed to verify the applicability of the notions hypothesised above to provide an adequate account of such jokes.

Example (2) is extracted from a lecture by Professor Krzysztof Meissner, a theoretical physicist specializing in particle physics.⁷ Commenting on the challenges encountered by researchers dealing with elementary particles, he incorporated the following joke into his talk:

- (2) All a theoretical physicist needs for work is a pen, paper and a trash bin.⁸

First of all, it can be pointed out that the audience is manifestly intended to recognize this utterance as (a fragment of) a joke. Taking into account the whole communicative situation, the audience can infer that the joke is not merely meant to provide amusement, but serves the purpose of conveying some true information about the nature of a theoretical physicist's research. The audience's expectations of relevance are therefore adjusted accordingly, and the process of inferential comprehension is carried out in such a way that these expectations are satisfied. As regards propositional attitude, the element of playfulness is identified corresponding to the extent to which the speaker does not intend to assert the proposition expressed, but uses it in virtue of interpretive resemblance to the situation depicted. The element of endorsement (however slight) is also identified, since the utterance is not completely absurd and there is a sense in which the work of a theoretical physicist literally requires such basic tools as enumerated in the joke. The exact proportion

7. The lecture entitled *Czy cząstka Higgsa ma rodzeństwo?* ('Does the Higgs boson have any siblings?') was delivered at the Faculty of Physics, University of Warsaw, on 14 March 2017. Both examples, i.e. (2) and (3) were translated from Polish for the sake of the analysis.

8. There are a number of versions of this joke, some ending with a punch-line to the effect that philosophers need only a pen and paper.

of these two elements is not easy to establish and may be intentionally left indeterminate by the speaker as a kind of lingering incongruity between the humorous and the informative function of the joke. As regards working out emergent implicatures, it is here tentatively assumed that the set of implicated premises made available by the joke includes the following:

- (2) a. The tools available to a theoretical physicist are very simple.
- b. Much of his/her work turns out to be worthless.
- c. His/her most important tool is his/her intellect.

The set of premises brought forth by the preceding utterances (being part of the lecture) may include:

- (2) d. Modern physics theories are very complicated.
- e. Theoretical physicists have great minds.
- f. Computations have to be carried out by means of advanced computers and software.

The juxtaposition of the joke's scenario with the assumptions conveyed by the lecture is likely to yield the following emergent implicatures:

- (2) g. A theoretical physicist has a very simple means to deal with complicated problems (2a+2d).
- h. Despite great intellectual abilities it is difficult to achieve success (2b+2e).
- i. Conceptual work matters more than the use of advanced technology (2c+2f).

Let us now turn to example (3), culled from a program aired on Polish Radio 3.⁹ A discussion was conducted on the role of the social media in the present-day world, following the terrorist attack in Christchurch, New Zealand, in which the assailant killed 50 people and injured 48, transmitting the attack live on Facebook. One of the invited experts Piotr Bodyl-Szymala asked the other interlocutors' permission to illustrate the point about social media encroaching on human life with the following joke:

- (3) During a church service one guy whispers to another "Do you know the Wi-Fi password here?" The other guy replies "Jesus Christ, mate!" and the first one goes on to ask: "With spaces or with underlines?"

9. The program entitled *Raport o stanie świata* ('A report on the condition of the world') was aired on 23 March 2019, at 15.06, hosted by Dariusz Rosiak.

In this case the speaker overtly signals his intention to use a joke to convey some communicative import, so the interlocutors and radio listeners can adjust their expectations of relevance. The set of assumptions against which this joke is processed is highly significant too: the topic of the conversation hardly accommodates amusement, thanks to which the audience expects positive cognitive effects mostly of informative kind. As in the previous case, the propositional attitude combines playfulness with endorsement, the latter being motivated by the non-zero likelihood of such a situation taking place in reality. The set of assumptions conveyed by the joke's scenario may include the following:

- (3) a. People expect the Internet to provide entertainment everywhere.
- b. People can't see anything wrong with using social media everywhere.
- c. Traditional rules of behaviour are being abandoned.

The topic of the discussion and specifically the opinions voiced by the interlocutors support the following implications:

- (3) d. Social media companies don't do enough to control content displayed on such media.
- e. Legal regulations are insufficient to protect users from potentially harmful content.
- f. Legal regulations should solve problems resulting from excessive use of social media

The emergent implicatures resulting from the joint processing of the two sets could be as follows:

- (3) g. The demand for entertainment possibly prevents the social media companies from acting effectively (3a provides an argument supporting 3d)
- h. Users don't want legal regulations to deprive them of access to sensational content (3b+3e)
- i. Legal regulations will not restore the traditional rules of behaviour (3c supersedes 3f).

As was mentioned before, both premises (2a–f, 3a–f) and conclusions (2g–i, 3g–i) in the two instances of the comprehension process are weak and fairly indeterminate, that is why the lists include possible assumptions and are by no means exhaustive. Despite the fact that each individual assumption is weak, their cumulative effect may leave the hearer with a fairly strong impression (Sperber and Wilson 2015) about the work of a theoretical physicist or the presence of social media in human life.

Given all the possibilities afforded by various more or less literal formulations, both speakers in the above-mentioned examples chose jokes to express their informative intention. Intuitively, the reason why they have done so is that this option

enabled them to evade full commitment to (some of) the assumptions made manifest by the joke, at the same time providing a means for conveying a set of assumptions resulting from exploring the analogy between the joke, especially its moral, and the situation to which it was supposed to pertain. The pragmatic mechanisms postulated in the previous section, i.e. the assignment of a mixed playful-endorsing propositional attitude, and the derivation of emergent implicatures appear to account for this intuition, using only the standard relevance-theoretic tools, without postulating any ad hoc solutions.

5. Conclusions

Many recent works in relevance-theoretic pragmatics advance proposals concerning communicative effects reaching ‘beyond meaning’, where ‘meaning’ is understood traditionally as a proposition and a set of implicatures expressed by an utterance. These publications include Carston (2010) on imagistic elements in metaphor processing; Sperber and Wilson (2015) on impressions, Wilson and Carston (2019) on weak communicative import, Wharton and Strey (2019) on emotions, and my own earlier attempts to discuss the interaction of cognitive and affective factors (Piskorska 2012) and perlocutionary effects (2016). This chapter contributes its share of evidence that this kind of effects – here involving the combination of speaker’s meaning with humour – can be straightforwardly accounted for by means of the relevance-theoretic apparatus.

Although jokes are not commonly thought of as a kind of figurative language, it has been indicated that they can be used to convey communicative import in a way similar to traditional tropes such as metaphor, allegory or irony. Describing the pragmatics of what was provisionally dubbed meaningful jokes in terms of a specific propositional attitude and emergent weak implicatures, this chapter may be also seen as making a case for continuity between various forms of expression. Meaningful jokes are thus naturally situated between humorousness and seriousness, and also at a place not so distant from the above-mentioned figures of speech.

References

- Carston, Robyn. 2010. “Metaphor: *Ad hoc* Concepts, Literal Meaning and Mental Images.” *Proceedings of the Aristotelian Society* 110 (3): 295–321.
<https://doi.org/10.1111/j.1467-9264.2010.00288.x>
- Carston, Robyn, and Catherine Wearing. 2011. “Metaphor, Hyperbole and Simile: A Pragmatic Approach.” *Language and Cognition* 3 (2): 283–312. <https://doi.org/10.1515/langcog.2011.010>

- Curcó, Carmen. 1995. "Some Observations on the Pragmatics of Humorous Interpretations. A Relevance-Theoretic Approach." *UCL Working Papers in Linguistics* 7: 27-47.
- Dynel, Marta. 2009. "Beyond a Joke: Types of Conversational Humour." *Language and Linguistics Compass* 3 (5): 1284-1299. <https://doi.org/10.1111/j.1749-818X.2009.00152.x>
- Dynel, Marta. 2013. "When Does Irony Tickle the Hearer? Towards Capturing the Characteristics of Humorous Irony." In *Developments in Linguistic Humour Theory*, ed. by Marta Dynel, 289-320. Amsterdam: John Benjamins. <https://doi.org/10.1075/thr.1.14dyn>
- Dynel, Marta. 2018. *Irony, Humour and Deception*. Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9781501507922>
- Jodłowiec, Maria. 1991. "What Makes Jokes Tick." *UCL Working Papers in Linguistics* 3: 241-253.
- Jodłowiec, Maria. 2015. *The Challenges of Explicit and Implicit Communication*. Frankfurt: Peter Lang. <https://doi.org/10.3726/978-3-653-05190-2>
- Kuipers, Giseline. 2008. "The Sociology of Humor." In *The Primer of Humor Research*, ed. by Victor Raskin, 361-398. Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9783110198492.361>
- Martin, Rod. 2007. *The Psychology of Humor: An Integrative Approach*. Academic Press. <https://doi.org/10.1016/B978-012372564-6/50024-1>
- Morreall, John. 2016. "Philosophy of Humor." *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), ed. by Edward N. Zalta. Accessed February 28, 2019. <https://plato.stanford.edu/archives/win2016/entries/humor/>.
- Mulkay, Michael. 1988. *On Humour: Its Nature and Its Place in Modern Society*. Oxford: Blackwell.
- Müller, Ralph. 2015. "A Metaphorical Perspective on Humour." In *Cognitive Linguistics and Humor Research*, ed. by Geert Brône, Kurt Feyaerts, and Tony Veale, 111-128. Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9783110346343-006>
- Norrick, Neal R. 2003. "Issues in Conversational Joking." *Journal of Pragmatics* 35: 1333-1359. [https://doi.org/10.1016/S0378-2166\(02\)00180-7](https://doi.org/10.1016/S0378-2166(02)00180-7)
- Oring, Elliott. 2003. *Engaging Humor*. Urbana: University of Illinois.
- Piskorska, Agnieszka. 2012. "Cognition and Emotions – A Joint Effort at Obtaining Positive Cognitive Effects?" In *Relevance Studies in Poland*, ed. by Agnieszka Piskorska, 102-111. Vol. 4 of *Essays on Language and Communication*. Warsaw: WUW.
- Piskorska, Agnieszka. 2014. "A Relevance-Theoretic Perspective on Humorous Irony and Its Failure." *HUMOR* 27 (4): 661-85. <https://doi.org/10.1515/humor-2014-0095>
- Piskorska, Agnieszka. 2016. "Perlocutionary Effects and Relevance Theory." In *Relevance Theory: Recent Developments, Current Challenges and Future Directions*, ed. by Manuel Padilla Cruz, 287-305. Amsterdam and Philadelphia: John Benjamins. <https://doi.org/10.1075/pbns.268.11pis>
- Piskorska, Agnieszka, and Maria Jodłowiec. 2018. "Weak Communication, Joke Target and the Punch-Line Effect: A Relevance-Theoretic Account." *Studies in Polish Linguistics* 13 (1): 25-44.
- Solska, Agnieszka. 2012. "The Relevance of the Juxtaposition of Meanings in Puns." In *Exploring Language Through Contrast*, ed. by Waldemar Skrzypczak, Tomasz Fojt, and Sławomir Waciewicz, 184-200. Newcastle-upon-Tyne: Cambridge Scholars Publishing.
- Sperber, Dan, and Deirdre Wilson. (1986) 1995. *Relevance: Communication and Cognition*. Oxford: Blackwell.
- Sperber, Dan, and Deirdre Wilson. 1987. "Precis of Relevance." *Behavioral and Brain Sciences*, 10: 697-754. <https://doi.org/10.1017/S0140525X00055345>

- Sperber, Dan, and Deirdre Wilson. 2008. "A Deflationary Account of Metaphors." In *The Cambridge Handbook of Metaphor and Thought*, ed. by Raymond W. Gibbs, 84–105. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511816802.007>
- Sperber, Dan, and Deirdre Wilson. 2015. "Beyond Speaker's Meaning." *Croatian Journal of Philosophy* 15 (44): 117–149.
- Sperber, Dan, Fabrice Clément, Christophe Heintz, Olivier Mascaro, Hugo Mercier, Gloria Origgi, and Deirdre Wilson. 2010. "Epistemic Vigilance." *Mind and Language* 24 (4): 359–393. <https://doi.org/10.1111/j.1468-0017.2010.01394.x>
- Suls, Jerry M. 1972. "A Two-Stage Model for the Appreciation of Jokes and Cartoons: An Information-Processing Analysis." In *The Psychology of Humor: Theoretical Perspectives and Empirical Issues*, ed. by Jeffrey H. Goldstein, and Paul E. McGhee, 81–100. New York: Academic Press. <https://doi.org/10.1016/B978-0-12-288950-9.50010-9>
- Unger, Christoph. 2017. "Towards a Relevance-Theoretic Account of Allegory." In *Applications of Relevance Theory: From Discourse to Morphemes*, ed. by Agnieszka Piskorska, and Ewa Wałaszewska, 152–174. Newcastle-upon-Tyne: Cambridge Scholars Publishing.
- Wharton, Tim, and Claudia Strey. 2019. "Slave to the Passions: Making Emotions Relevant." In *Relevance. Pragmatics and Interpretation*, ed. by Kate Scott, Billy Clark, and Robyn Carston, 253–267. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290593.022>
- Wilson, Deirdre. 2006. "The Pragmatics of Verbal Irony: Echo or Pretence?" *Lingua* 116: 1722–1743. <https://doi.org/10.1016/j.lingua.2006.05.001>
- Wilson, Deirdre. 2018. "Relevance Theory and Literary Interpretation." In *Reading Beyond the Code: Literature and Relevance Theory*, ed. by Terrence Cave, and Deirdre Wilson, 185–204. Oxford: Oxford University Press.
- Wilson, Deirdre, and Robyn Carston. 2007. "Metaphor and the 'Emergent Property' Problem: A Relevance-Theoretic Approach." *Baltic International Yearbook of Cognition, Logic and Communication* 3: 1–40. <https://doi.org/10.4148/biyclc.v3io.23>
- Wilson, Deirdre, and Robyn Carston. 2019. "Pragmatics and the Challenge of 'Non-propositional' Effects." *Journal of Pragmatics* 145: 31–38. <https://doi.org/10.1016/j.pragma.2019.01.005>
- Wilson, Deirdre, and Dan Sperber. 2004. "Relevance Theory." In *Handbook of Pragmatics*, ed. by G. Ward, and L.Horn, 607–632. Oxford: Blackwell.
- Wilson, Deirdre, and Dan Sperber. 2012. *Relevance and Meaning*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139028370>
- Yus, Francisco. 2003. "Humor and the Search for Relevance." *Journal of Pragmatics* 35 (9): 1295–1331. [https://doi.org/10.1016/S0378-2166\(02\)00179-0](https://doi.org/10.1016/S0378-2166(02)00179-0)
- Yus, Francisco. 2013. "An Inference-Centered Analysis of Jokes: The Intersecting Circles Model of Humorous Communication." In *Irony and Humor: Highlights and Genres*, ed. by Leonor Ruiz Gurillo, and M. Belén Alvarado Ortega, 59–82. Amsterdam: John Benjamins. <https://doi.org/10.1075/pbns.231.05yus>
- Yus, Francisco. 2016. *Humour and Relevance*. Amsterdam: John Benjamins. <https://doi.org/10.1075/thr.4>
- Ziv, Avner. 2009. "The Social Function of Humor in Interpersonal Relationships." *Society* 47 (1):11–18. <https://doi.org/10.1007/s12115-009-9283-9>

SECTION 3

Furthur beyond

Ineffability by meaning / showing

Experiences of ineffable significance

Nigel Fabb

University of Strathclyde

An 'experience of ineffable significance' is sudden feeling of knowing something very significant but which cannot be described in words, sometimes accompanied by chills or tears. Amongst its types are the sublime and (secular) 'epiphanies'. Drawing on work by Huron and by Meyer, I propose that it is a type of surprise, arising from perceptions whose match to our schematic knowledge falls outside the normal range of discrepancy, either by radical discrepancy or by uncanny identity. Assuming a theoretical context of Relevance Theory, and drawing on work by Sperber and by Raffman, I explore some reasons how we are able to suddenly judge that the perception produces deeply significant knowledge, and why that knowledge cannot be expressed in words.

Keywords: inferential pragmatics, relevance theory, ostension, meaning_{nn}, non-intentional communication

1. Experiences of ineffable significance

This chapter discusses a type of experience involving a sudden feeling of coming to know something which is very significant but which cannot be described in words. Such experiences may be associated with emotional arousal, such as chills or tears. The experiencer sometimes attributes the experience to some perception of the world, as in descriptions of 'sublime' experiences of natural grandeur, or of 'epiphanies' triggered by everyday objects perceived in a new way. These experiences can sometimes be recreated when the experiencer remembers them, as in Wordsworth's poetry, or Proust's novels. The experiences can also be caused by artworks, including literature, and I conclude by considering the special status of literature in the experiences, including the possibility that the representation of a character's having this experience can trigger a similar experience in the reader. Experiences which share some of these components, even though they differ in their content, their triggers, and their historical and cultural context, include accounts of the sublime in Mendelssohn ([1758] 1997), in Burke ([1757]1987) and in

Kant ([1790]1952), epiphanies in Joyce (1944), moments of being in Woolf (1928), ecstasy in Laski (1961), peak experience in Maslow (1976) and so on. The family resemblance between these experience approximates to what William James ([1902] 1982) describes as ‘states of insight into depths of truths unplumbed by the discursive intellect illuminations, revelations, full of significance and importance, all inarticulate though they remain.’ In this chapter I call them ‘experiences of ineffable significance’. This chapter proposes a unified account of how these experiences might arise, and, following James, asks what cognitive processes leading them to be judged as ‘full of significance and importance’, and why the knowledge gained is described as ‘inarticulate’ or ineffable. I begin and end the chapter by discussing the central role of representation in these experiences.¹

These experiences are rare, but I will suggest that they can be caused by a very common and everyday type of psychological event: surprise. The specific occurrence of each actual experience, and the rarity of these experiences, cannot be explained by its ordinary cause, but instead depend on the contribution of context, both the immediate context of the experience and the larger contexts around it. Similarly, context may play a role in why different kinds of experience vary from one another. Context includes transient and contingent factors associated with the moment of experience, the environment, the experiencer’s body, the experiencer’s cognitive context, and so on, as well as more permanent contexts such as culture, personality, age, gender or other characteristics. Context is also relevant to how the experience is understood and reported. All humans at all times may have had this kind of experience, but whether and how the experience is reported may depend on the affordances of the culture: its expressive possibilities and constraints on what can be said. Context is undescribable and untheorizable because of its complexity and density. And yet a reference to context does the ‘heavy lifting’ in accounting for why any instance of these experiences arises at any moment.

2. Etiology: Discrepancies outside a normal range

We have contentful mental states, or mental ‘representations’ (Fodor 1975), which I take to include conscious or unconscious mental states, including relatively low level perceptions, generalized representations such as schemata and scripts, memories (both episodic and semantic), linguistic representations, and concepts and propositions. These involve different representational systems. A large part of our

1. The research for this article was supported by a Major Research Fellowship funded by the Leverhulme Trust, titled ‘Epiphanies in literature: a psychological and literary linguistic account. The comments of two anonymous reviewers have been very helpful in revising this chapter.

mental activity involves matching one representation to another, often between different systems. A paradigm example of this is the matching of (phonological) representations of sound to (semantic) representations of meaning, between different cognitive systems. The idea that our mental life involves the matching of representations also fits with Andy Clark's (2013) predictive theory of the brain, according to which our experience of the world involves matching what we know with what we perceive: the brain produces weighted predictions which are matched against perceptions. The prediction and the perception can each be treated as representations (i.e., as contentful mental states).

When two representations are matched, they will rarely be identical, and certainly not if they are from different representational systems. What we expect to perceive is unlikely to exactly match what we actually perceive. For example, the schemata we bring to the world are always more general than the perceived instances to which the schemata are matched. This means that the matching between representations normally involves a certain amount of variation arising from the difference between the general and the specific; that is, there is always some discrepancy between schemata and perceptions. In terms of the predictive brain, a mismatch between expectation (predicted representation) and perception (perceived representation) is a 'prediction error', a discrepancy which occurs all the time, though usually without any further consequence. I suggest that the discrepancies show a normal distribution with a very small number of matchings either being very far apart (very discrepant) at one end of variation, or very close (i.e., very nondiscrepant) at the other end of variation. Outside the normal distribution there are matchings both above and below the normal range of discrepancy. I focus in this paper on these matchings outside the normal range, and I suggest they have a role in causing experiences of ineffable significance.

I have borrowed the idea that the matching of representations has a distinctive effect if it falls outside the normal range from Sperber's (1996b) account of the symbolic animals in the Bible. These are the animals which can be sacrificed (if perfect), or are abominations which cannot be eaten (if anomalous). Both kinds of animal are statistical exceptions. They fall outside the normal distribution. Because they evoke a world of perfection or a world of anomaly, the two types of animal are symbolic: they 'meet obstacles in conceptual processing and are symbolically processed'. Broadly interpreted, this suggests that representations which fall outside a normal distribution are cognitively 'difficult', which I suggest makes these representations a potential trigger for the experiences of ineffable significance.

My proposal in this chapter is this: Experiences of ineffable significance are triggered by a matching of representations which is either above or below the normal range of discrepancy.

The experience of the sublime often involves a perception of something which is extreme relative to its type, something very large, or deep, or fast, or slow, or old. This is a match which exceeds the normal range of discrepancy between the representation of the type and the representation of the token. Here the trigger for the experience is that the match is above the normal range of discrepancy.

But it is also possible – at the same time – to interpret the sublime as a matching below the normal range of variation, as when Miall (2007) cites Shelley on the experience of the sublime in nature in which there is a ‘merging of mind and nature’, and we might interpret this merger as a ‘perfect’ matching of representations and hence below the normal range of variation: the representation of the experiencing subject and the representation of the experienced object are matched more closely than we might expect. The sublime thus potentially arises when the matching of representations falls either above or below the normal range of discrepancy, or both at the same time, in different ways.

Perceptions of uncanny doubles are matchings of representations which are below the normal range of variation because they are perfect matches. An example is the moment in Hoffmansthal’s ‘Cavalry story’ where ‘the sergeant stared and recognized himself as the apparition’ (Hoffmansthal [1902] 2005: 8), of which Bohrer (1994: 54) says, ‘What is suddenly perceived or perceptible in that moment remains, however, pointedly unexplained and submerged in the sphere of enigma.’

Consider now strong experiences which arise from perceptions in which ordinary objects or events seem strange, striking or full of meaning. Here, I suggest, the object is perceived as strongly discrepant relative to its schema; the object ‘demands a separate existence’, apart from the schematic form which characterises what we generally know it to be. The notion of a ‘separate existence’ comes from Kenneth Clark’s (1981: 3) description of a ‘moment of vision’: ‘Mr Graham Sutherland has described how on its country walks objects which he has passed a hundred times – a root, a thorn bush, a dead tree – will suddenly detach themselves and demand a separate existence; but why or when this should happen he cannot tell us’. These types of experience are characteristic of the epiphanies described in Modernist texts, as in Joyce’s characterization, via his character Stephen: ‘[the Ballast Office clock] is only an item in the catalogue of Dublin’s street furniture. Then all at once I see it and I know at once what it is: epiphany’ (Joyce 1944: 188).

There is a pathological analogue to these extraordinary experiences of the ordinary. This is a delusion where ordinary objects seem special: ‘the aberrant assignment of salience to innocuous stimuli’ (Mishara and Fusar-Poli 2013: 284). Delusions emerge either as false or exaggerated prediction errors (in which what is expected does not match what is perceived). Prediction errors are a mismatch between representations, and predication errors depend on dopamine (Fletcher and

Frith 2009). The delusional brain has excess dopaminergic activity, and so produces false prediction errors, which produce delusions.

Delusions present an experimentally-studied type of experience which offers some indirect clues to what might be happening in the 'experience of ineffable significance'. Further clues come from the experimentally-studied phenomenon of sudden chills and tears and other similar arousals in response to aesthetic and other stimuli. The justification for relating epistemic experiences of ineffable significance to these physical arousals comes from accounts which relate the epistemic and the physical, relating the sublime or other profound knowledge to emotional arousal. One such account is Mendelssohn's ([1758] 1997: 193) trembling (*Schauern*) in response to the sublime: 'The senses fall into a kind of unrest that is similar to shuddering at something immeasurable. [*die Sinne und die geraten dadurch in eine Unruhe, die dem Schauer des Unermesslichen nahe kommt*]'. Another example is Housman's (1933: 46) goosebumps in response to poetry: 'if a line of poetry strays into my memory, my skin bristles so that the razor ceases to act'. These arousals are related to the chill experiences in response to music which have been extensively studied by psychologists, and which one of the arousals which Huron (2006: 26) in his book on the experience of music calls the 'flavours of surprise'.² He suggests that they are variants of the flight-fight-freeze responses; any perceptual surprise might indicate the presence of a predator, to which potential threat the prey animal responds with one of these kinds of arousal. We acquired these responses through our evolution as a prey animal, and we retain them in our response to the world, and to art, where surprise remains important. Meyer et al. (1991: 296) say that 'surprise is elicited by events that deviate from a schema': the representation of the event is matched to and radically deviates from the schematic representation of the expected event. If chill experiences coincide with the experiences of ineffable significance, it may be that they share an etiology, both arising from a radical mismatch between representations. They start as kinds of surprise.

Chill experiences are related, as a response, to sudden tears. The connection is made by William James:

2. I mention research relating to music at various points in this chapter. This reflects the greater extent, and longer history, of experimental and cognitive work on music, compared with literature, and indeed the fact that it is easier to undertake experimental work on musical experience, where the stimulus can more easily be isolated and where (characteristically student) listeners often have greater relevant technical skill, which has been shown to enhance the experience. Music also has the potential to produce psychoacoustic effects which can be surprising and lead to arousal, and may be closer to the evolutionarily relevant triggers which underlie these experiences. However, music lacks the extensive metarepresentational structures which also play a role in generating these experiences, particularly the epistemic feelings.

In listening to poetry, drama, or heroic narrative, we are often surprised at the cutaneous shiver which like a sudden wave flows over us, and at the heart-swelling and the lachrymal effusion that unexpectedly catch us at intervals. In listening to music, the same is even more strikingly true. (James 1884: 196)

While chill experiences may be a response to schematic discrepancy (hence surprise), tears are not obviously a manifestation of a surprise emotion. Instead, in recent work on responses to literature involving chills and tears, and the combination of chills (goosebumps) and tears which they call ‘goosetears’, Wassiliwizky et al. (2017) propose them as responding to manifestations of empathy (following Panksepp 1995). Empathy thus might be another source of these types of response, and perhaps to the experiences of ineffable significance more generally, and this might offer a second explanation of the emotional response.

However, it is worth asking whether empathy involves a matching of representations which falls below the ordinary range of variation, as in the examples of the uncanny discussed earlier. Empathy might be interpreted as a matching of representations of the self with representations of another person. Empathy can be interpreted as involving a closeness of match between the representations of self and other, which falls below the normal range of variation. Empathy might thus be a doubling of the self by an other which is a type of the uncanny, or a merger of the mind with some external thing (another mind), following Miall (2007) on the sublime.

In this section I have suggested that there are two ways in which the experience may be triggered by a matching of representations which falls outside the normal range of variation expected in a matching. The matching may be below the normal range, for example when there is identity between two representations; and it may be above the normal range, for example when there is a significant mismatch between the two representations. Adapting Sperber’s unifying account of both perfect and anomalous animals, I suggest that both perfect and anomalous matchings of representations can generate the same kind of unusual cognitive activity (which Sperber calls symbolic thinking).

3. Epistemic feelings: Significance

In this section, I ask how the feeling of coming to know something significant might arise; we might call it an ‘epistemic feeling’. A similar and well-studied epistemic feeling is the ‘feeling of knowing’ (Hart 1965), a feeling that one knows the answer to a question without at that moment being able to express it; an example is the ‘tip of the tongue’ experience. Though similar in some respects, the difference from

the experience discussed in this chapter is that in the experimental contexts which provide evidence for the 'feeling of knowing', what is known is not profound or significant, the inexpressibility is temporary, and the knowledge can eventually be expressed.

The subjective feeling that we know something significant does not prove that what we know is in fact significant in any objective or general way. Following James ([1902] 1982), our problem is to explain how our ordinary psychology can produce the feeling of coming to know something significant, independent of whether what is known is in any objective sense significant (e.g., whether it is a transcendent reality).

Sometimes a feeling of significance which arises from an experience might emerge after a long period of repeatedly thinking about the experience, finding more meaning at each iteration, much like the re-readings of a literary or religious text. The significance of the experience might be measured by looking back at the quantity of cognitive effects produced. But this cannot always be the case, and indeed the experience often seems to immediately deliver profound significance. Woolf (1927) describes 'little daily miracles, illuminations, matches struck unexpectedly in the dark', and James ([1902] 1982: 382) 'that deepened sense of the significance of a maxim or formula which occasionally sweeps over one'. In both cases, the sense of significance comes suddenly upon the experiencer, without the opportunity to spend time first producing a large range of the cognitive effects and then retrospectively assessing them.

How, then, might the experiencing subject immediately make a metacognitive assessment of the significance of an experience? One way of understanding this is to consider the notion of 'poetic effects' in relevance theory, where the poetic effects of a communication 'marginally increase the manifestness of a great many weakly manifest assumptions', and 'result from the accessing of a large array of very weak implicatures in the otherwise ordinary pursuit of relevance' (Sperber and Wilson 1995: 224). Where poetic effects arise relatively slowly, they might arise from bringing a large number of thoughts to consciousness. But perhaps poetic effects can also arise very quickly, where the subject has a sudden metacognitive awareness of a large number of thoughts, without actually entertaining those thoughts (because there is not enough time to formulate them all). The terms 'manifestness' and 'accessing' in the description of poetic effects quoted above can be read as saying that the thoughts are felt to be within reach, but not yet brought to awareness or explicitly expressed. In other words, a poetic effect is a feeling of knowing, based on a guess as to how many cognitive effects are likely to arise from any particular input, and the guess is made very rapidly. The content of the guess is the existence of a large set of thoughts, not any specific thoughts. The feeling of poetic effects might itself be one variant of the feeling of significance.

Another approach to the same problem of explaining how we get an instant sense of significance can be adapted from Foster and Keane's (2015) metacognitive explanation-based model of surprise. Surprise is an everyday analogue of the rare experience of ineffable significance. Foster and Keane suggest that the subject who is presented with a surprise-causing discrepancy is rapidly able to perform a computation of the discrepancy which triggers the surprise, by conceptually linking the surprising outcome to the scenario in which it unexpectedly occurred. They suggest that the amount of work expended in the computation acts as a proxy for the quantity of surprise at the discrepancy, so that 'some surprises are more surprising because they are harder to explain'. More specifically, 'the perception of surprisingness is based on a metacognitive assessment of the effort to explain, the amount of cognitive work carried out to explain the outcome' (Foster and Keane 2015: 80). We might adapt this to say that the metacognitive assessment of cognitive effort and the emotional effect of surprise are different kinds of mental activity, where the former causes the latter, but that they operate at different scales. That is, tiny differences in cognitive effort may produce big differences in the effect of surprise. Compare a car driver's foot pushing down on an accelerator pedal, where a small movement of the foot produces a very large difference in the speed of the car; one event causes the other, but they are different in kind, and operate at different scales so that a small change in one event is scaled up to cause a large change in another event. If this is correct for the production of big surprises from small variations in effort, then we might consider whether the feeling of significance works in a similar scaled-up way. Perhaps we have the capacity to make a rapid metacognitive assessment of cognitive effects (a guess as to what might arise). Such an assessment can only be very brief and preliminary, but small differences in the assessment might scale up to cause big differences in the feeling of significance.

The significance of an experience is one aspect of its having a sizeable 'cognitive effect'. Sperber (2005) suggests that many cognitive effects are not calculated by a metacognitive mechanism, and that there are other ways for the brain to calculate cognitive effects. He makes the same point for the management of cognitive effort, and suggests that only once a threshold of effort is passed is there explicit cognition. Perhaps similarly there is a threshold for cognitive effects, such that we become aware of cognitive effects only when their size is above that threshold. The emergence of metacognition at this point may play an important role in the generation of the extreme experience, as I suggest at the end of the chapter.

4. Ineffability

What comes to be known in these experiences is sometimes characterized as ineffable. William James ([1902] 1982: 380) says that ‘the subject of [the mystical state of mind] immediately says that it defies expression, that no adequate report of its contents can be given in words.’

A decision to express the feeling of knowing something ineffable may depend on cultural context, such as a tradition or trope of ineffability, found in some theological discourse (Sundararajan 2002). We might therefore expect ineffability to be sometimes mentioned in as a characteristic of these experiences, perhaps coinciding with a reported feeling of significance, but this depends both on cultural context and individual choice.

Raffman’s (1993: 4) account of music distinguishes kinds of ineffability, one of which is structural ineffability, arising as a characteristic of types of mental structure. An example of a structural ineffability is when a type of representation is too fine-grained for verbalization, such as a tiny pitch interval which we can perceive (and hence mentally represent) but which is too small to have a name.

Adapting Raffman, we might say that structural ineffability is inherent to language itself. Linguistic representations are matched to other types of mental representation, such as the perceptions (i.e., mental representations) of specific objects and events. Various kinds of discrepancy arise as a structural effect between the two representational systems, because words generally characterize types or schemata, and perceptions are of tokens. This means that there is a structural ineffability which arises from the mismatch between the generalities of language and the specificity of represented events and objects. Literary realism is a device for managing this ineffability, by finding ways of expressing the uniqueness of the world in the symbolic system of language whose terms are almost always general in their meaning. The relation between representations can also become ineffable, with no way of verbalizing the relation between related terms. In metaphor, the representation encoded by what is said (the metaphor’s ‘vehicle’) is different from the representation or representations which express what is implied (the metaphor’s ‘tenor’), and the relation between the encoded and implied representations may itself be unverbalizable. It may not be possible to say in words what the relation is between the encoded meaning and intended meaning of a metaphor; the relation between the two is ineffable. This ineffability is even more likely to arise where there are multiple possible meanings of a metaphor, as for example in the ‘poetic effects’ of Sperber and Wilson (1995) discussed earlier, where the massive combination of weak implicatures may as a whole be unverbalizable. In the widely used literary device of parallelism, two adjacent and similar expressions are matched, and just as in a metaphor, the relation between the two representations which form the

parallel pair may itself be unverbalizable (Fabb 2018). In all these ways, verbal and mental representations offer many opportunities for structural ineffability. It may be that the ineffability reported in these experiences comes from the structural fact of a discrepancy between representations which passes some threshold. Attention and metacognition may play a role here: for example, it may be that the feeling of ineffability comes from a particular attention to structural ineffabilities which are always present (inherent to the general vs. particular nature of representation), but not always attended to.

In this light, consider Zhang's (2014) account of Virginia Woolf's use of demonstratives at key points in her novels. Here, for example, is the moment of vision at the end of *To the Lighthouse*.

With a sudden intensity, as if she saw it clear for a second, she drew a line there, in the center. It was done; it was finished. Yes, she thought, laying down her brush in extreme fatigue, I have had my vision. (Woolf 1927)

The demonstrative 'there' stands for the moment in which Lily, the painter, produces a representation (in painting) which exactly stands for the meaning she intends (itself a representation of the world), and where there is identity between the representations. Zhang argues that the demonstrative 'there' is in this text a strategy for pointing directly to the world, thereby escaping the schematicity of language.

At the end of Woolf's *Mrs. Dalloway*, a similar function is played by the name 'Clarissa', which combines with the demonstrative 'there' as two ways of escaping the schematicity of language, and thereby express Peter's moment of vision:

'I will come,' said Peter, but he sat on for a moment. What is this terror? what is this ecstasy? he thought to himself. What is it that fills me with extraordinary excitement?

It is Clarissa, he said.

For there she was. (Woolf 1925)

These are experiences of ineffable significance which are expressed by using aspects of language such as names and demonstratives, which appear to remove the gap between the general representational system of language and the specific representations which we produce in our perceptions of the world. The experience of ineffable significance is produced by a match between representations where the match falls below the normal range of discrepancy; there is an uncanny identity between the name (or demonstrative) and the thing.

5. Representation and metarepresentation

I suggest now that experiences of ineffable significance are enhanced by being represented. In order to report an experience of ineffable significance it must be represented in language, both when we describe our own experience and in fictions where these experiences are described as occurring to characters. The experience may also be remembered, hence (re-)represented to oneself, again presumably in language. Literature tells us that the process of representing, expressing and remembering moments of ineffable significance can in fact recreate the same or a similar experience in the subject, or in the person communicated to. Wordsworth's 'daffodils' poem ("I wandered lonely as a cloud", 1807) records a sublime experience and then describes how the experience can be recreated in memory, whereby the process of representation perhaps makes the experience stronger. The poem as a whole may reproduce the profound experience in us as a reader, but by representing perceptions (and memories) which we did not directly have. The same may be true for many literary or other artistic representations in which a character or the author has a profound experience, thereby triggering an analogous experience in the reader.

This is also illustrated by the ease with which it is possible to trigger chills either by describing to another, or remembering for oneself, a chill-inducing experience. Thus Gabrielsson (2011: 460), in his book on 'strong experiences in music' says: 'Just the very act of reading these accounts has given me many strong experiences: now and then I have become totally absorbed and very moved, felt shivers, tears welling in my eyes, and recognized reactions in myself.'

The fact that experiences of ineffable significance are enhanced by being represented relates to the ways in which representations play a part in the generation and characteristics of these experiences. I began this chapter by suggesting that experiences of ineffable significance arise from the matching of representations where the match is either much more discrepant than normal, or is much less discrepant than normal (approaching identity). When we think about our experiences, or report them, we represent them. These representations of specific experiences can be matched with schemata for kinds of experience. Here is how it would work: An experience of ineffable significance, which is a relatively rare experience, is not within the normal range of experiences, and hence might be widely discrepant from whatever experience-schema it is matched to. This in turn would make the representation of that experience itself a potential trigger for an experience of ineffable significance. A perception of a mountain might trigger an experience of ineffable significance because the mountain is an extreme example of its type. In turn, our perception of our own represented experience of ineffable significance

can in itself trigger an experience of ineffable significance, because the represented experience falls outside the normal range of variation for the type of experience to which it is matched.

A second way of thinking about the representation of experiences of ineffable significance is that they are incomplete representations, that is, representations with gaps or uninterpretable components. The gaps might exist in the ineffable core of the experience, or come from the difficulty of understanding the rare experience itself as an instance of a known type of experience. Following Sperber (1996a), incomplete representations can produce a feeling of significance, perhaps caused by an estimation of how many thoughts might in future be generated from the incomplete representation. Representations of 'experiences of ineffable significance' are thus (like many religious beliefs) representations which we cannot fully understand and which do not entirely make sense.

Finally, I suggest two ways in which literature has a special role in the generation of experiences of ineffable significance. First, literature is built entirely from representations, in its use of the representational system of language, but also in the way it deploys pragmatic possibilities of language such as metaphor and irony, and in its use of narratives which represent events, and characters which represent people. In reading literature, we are constantly matching representations against other representations (often at different levels of generality), and hence literature offers many possibilities for producing discrepancies above and below the normal range. Literature is a collection of rule-based systems for poetic form, for narrative, and so on, and in reading we match our representations of the specific forms of specific texts against schematic representations of texts and their forms. Each match has a normal range of variation in how strictly it applies, and so formal or textual variations above or below the normal range may surprise the reader, and produce other experiential effects. Smith (1968: 92) says about poetic closure that 'one of the most common and substantial sources of closural effects in poetry is the terminal modification of a formal principle'. She shows that these terminal modifications often reduce the discrepancy below the normal range of variation (and, as Fabb 2016 shows, sometimes increase the discrepancy above the normal range of variation). Devices such as closure thus depend on the matching of texts against schemata and the possibility of pushing that matching beyond the normal range of variation, thus producing, perhaps, experiences of ineffable significance as part of the experience of textual closure.

6. An example

In this section, I illustrate my proposal by examining a report of an experience of ineffable significance, from Marghanita Laski's *Ecstasy*. In a television broadcast in 1958, Laski asked viewers 'to write and tell her of mystical experiences they had known', as part of her project on what she called 'ecstasy', which I classify as a type of experience of ineffable significance. One of her examples was from an (anonymized) woman, who described her experience in 1916, walking with young children on the shore near Culross in Scotland.

The sun was not shining. I looked across the waters of the Firth of Forth over to the hills hiding the town of Linlithgow, studying the outline against the watery sky, and out of the utter boredom and empty meaninglessness of that afternoon came a stab of knowledge. I *knew* and have known ever since, that there *is* some Reason, some Plan, some Cause, some Soul, call it what you will, which can be relied upon For a split second, there upon the shores of the Firth, I *understood*. What I understood I don't know now, but I *know* I understood then and I have remained firm and calm and unshaken upon that rock – i.e., that once I understood – ever since.

(Laski 1961: 531–2)

This is an experience of ineffable significance. It seems to involve ordinary circumstances and ordinary perceptions, which allies it with the epiphany of the ordinary; but on the other hand its reference to landscape might imply the sublime. I proposed in this chapter that experiences of ineffable significance are triggered by a matching of representations which is either above or below the normal range of discrepancy, and in this example we can find various examples of perceptions and descriptions which involve high discrepancy relative to schematic knowledge. First, there are two liminalities, which are always inherently discrepant because they are 'non-places' between two clearly defined zones: the beach and the horizon. Then there is the hybridity of the watery sky (and implicitly the hybridity of the Forth which at Culross is an estuary, a mixture of sea and river), and a hybridity is also schematically discrepant. And absence is a repeated theme in the description: an unshining sun, a hidden town, a meaningless stretch of time, and the absence of knowledge ('What I understood I don't know now'). These absences make the absent things discrepant. These could be the triggers, and there may be other aspects of the context which are also relevant. For example, she is walking (and walkers often seem to get these experiences, with two examples already cited here of Wordsworth and Sutherland). Furthermore she is walking in a discrepant way: 'three other young children running round me, getting under my feet and asking the silliest questions'. Also, the experience is in the middle of the First World War which was a discrepant and also a liminal moment (exploited in the liminal

middle section of another land-to-water epiphanic narrative, *To the Lighthouse*, mentioned earlier).

These are potential triggers, and perhaps the accumulation of them, or some other catalyst which we cannot now know, constitutes the initial moment of surprise which passes a threshold such that arousal is possible, and perhaps she experiences some arousal, suggested by the piercing metaphor of 'stab' (like the *punctum* in Barthes 1982: 43). Why does an effect of significance arise here? I suggest that within her there is a metacognitive assessment that there could be major cognitive effects which can be derived from the perceptions; the sense of everything being known all at once may perhaps be a displaced sense of many things potentially being known in the future, once the implications of the perceptions have been worked through. The ineffability of the experience may come from the fact that those implications never are worked through, so that the knowledge is never formulated. The belief that something is known can survive without explicitly representing what is known (an example of Sperber's symbolic thinking). This is an experience which is remembered forty years later, and perhaps has been rehearsed by the woman over this time, thereby repeatedly metarepresenting it. The experience is itself anomalous, on the one hand strongly discrepant relative to ordinary experience, and on the other hand perhaps expressing a magical (uncanny) similarity between knowledge and the world. The anomaly of the experience is then metarepresented and thereby both enhances and reproduces the significant ineffability of the original experience, both for the woman herself, and perhaps for her audience when she describes it.

7. Conclusion

In this paper I have proposed that a family of experiences, including types of the sublime as well as Modernist epiphanies, all arise from the matching between mental representations. In any matching of mental representations, there is a normal range of discrepancy, and these distinctive experiences arise when the discrepancy is either much larger than the normal range of variation, or much smaller (approaching identity). The epistemic feeling of significance which can attach to this experience may come from a small difference in the immediate assessment of potential cognitive effects. The feeling that what is known cannot be put into words (ineffability) arises from attention to various structural ineffabilities which arise from the way the representational systems generally operate. Representation and metarepresentation themselves afford further possibilities for discrepancy above or below a normal range of variation. Literature, as a richly representational and metarepresentational system is particularly suited to the production of these kinds of experience.

References

- Barthes, Roland. 1982. *Camera Lucida: Reflections on Photography*. London: Fontana.
- Bohrer, Karl Heinz. 1994. *Suddenness: on the Moment of Aesthetic Appearance*, trans. by Ruth Crowley. New York: Columbia University Press.
- Burke, Edmund. (1757) 1987. *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*, ed. by J. T. Boulton. Revised edition. Oxford: Blackwell.
- Clark, Andy. 2013. "Whatever Next? Predictive Brains, Situated Agents, and the Future of Cognitive Science." *The Behavioral and Brain Sciences* 36 (3): 181–204.
<https://doi.org/10.1017/S0140525X12000477>
- Clark, Kenneth. 1981. "Moments of Vision." In *Moments of Vision*, 1–17. London: John Murray.
- Fabb, Nigel. 2016. "Processing Effort and Poetic Closure." *International Journal of Literary Linguistics* 5 (4): 1–22. <https://doi.org/10.15462/ijll.v5i4.78>
- Fabb, Nigel. 2018. "Poetic Parallelism and Working Memory." *Oral Tradition* 31 (2): 355–372.
- Fletcher, Paul C., and Chris D. Frith. 2009. "Perceiving Is Believing: A Bayesian Approach to Explaining the Positive Symptoms of Schizophrenia." *Nature Reviews: Neuroscience* 10: 48–58.
<https://doi.org/10.1038/nrn2536>
- Fodor, Jerry. 1975. *The Language of Thought*. Cambridge MA: Harvard University Press.
- Foster, Meadhbh I., and Mark T. Keane. 2015. "Why Some Surprises Are More Surprising than Others: Surprise as a Metacognitive Sense of Explanatory Difficulty." *Cognitive Psychology* 81: 74–116. <https://doi.org/10.1016/j.cogpsych.2015.08.004>
- Gabrielsson, Alf. 2011. *Strong Experiences with Music: Music is Much More than Just Music*, trans. by Rod Bradbury. Oxford: Oxford University Press.
- Hart, J. T. 1965. "Memory and the Feeling-of-Knowing Experience." *Journal of Educational Psychology* 56 (4): 208–216. <https://doi.org/10.1037/h0022263>
- Housman, A. E. 1933. *The Name and Nature of Poetry*. Cambridge: Cambridge University Press.
- Huron, David. 2006. *Sweet Anticipation: Music and the Psychology of Expectation*. Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/6575.001.0001>
- James, William. 1884. "What is an Emotion?" *Mind* 9 (34): 188–205.
<https://doi.org/10.1093/mind/os-IX.34.188>
- James, William. (1902) 1982. *The Varieties of Religious Experience: A Study in Human Nature*, edited with an introduction by Martin E. Marty. New York: Penguin.
<https://doi.org/10.1037/10004-000>
- Joyce, James. 1944. *Stephen Hero: Part of the First Draft of "A Portrait of the Artist as a Young Man"*, ed. by Theodore Spencer. London: Jonathan Cape.
- Kant, Immanuel. (1790) 1952. *The Critique of Aesthetic Judgement*, trans. with analytical indexes by James Creed Meredith. Oxford: Oxford University Press.
- Laski, Marghanita. 1961. *Ecstasy: A Study of Some Secular and Religious Experiences*. London: The Cresset Press.
- Maslow, Abraham H. 1976. *Religions, Values, and Peak Experiences*. Middlesex: Penguin.
- Mendelssohn, Moses. (1758) 1997. *Philosophical Writings*, ed. by Daniel O. Dahlstrom. Cambridge: Cambridge University Press.
- Meyer, Wulf-Uwe, Michael Niepel, Udo Rudolph, and Achim Schützwohl. 1991. "An Experimental Analysis of Surprise." *Cognition and Emotion* 5 (4): 295–311.
<https://doi.org/10.1080/02699939108411042>

- Miall, David S. 2007. "Foregrounding and the Sublime: Shelley in Chamonix." *Language and Literature* 16: 155-168. <https://doi.org/10.1177/0963947007075982>
- Mishara, Aaron L., and Paolo Fusar-Poli. 2013. "The Phenomenology and Neurobiology of Delusion Formation During Psychosis Onset: Jaspers, Truman Symptoms, and Aberrant Salience." *Schizophrenia Bulletin* 39 (2): 278-286. <https://doi.org/10.1093/schbul/sbs155>
- Panksepp, Jaak. 1995. "The Emotional Sources of 'Chills' Induced by Music." *Music Perception: An Interdisciplinary Journal* 13 (2): 171-207. <https://doi.org/10.2307/40285693>
- Raffman, Diana. 1993. *Language, Music and Mind*. Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/4120.001.0001>
- Smith, Barbara Herrnstein. 1968. *Poetic Closure: A Study of How Poems End*. Chicago: University of Chicago Press.
- Sperber, Dan. 1996a. *Explaining Culture: A Naturalistic Approach*. Oxford: Blackwell.
- Sperber, Dan. 1996b. "Why Are Perfect Animals, Hybrids, and Monsters Food for Symbolic Thought?" *Method and Theory in the Study of Religion* 8 (2): 143-169. <https://doi.org/10.1163/157006896X00170>
- Sperber, Dan. 2005. "Modularity and Relevance: How Can a Massively Modular Mind Be Flexible and Context-Sensitive?" In *The Innate Mind: Structure and Contents*, ed. by P. Carruthers, S. Laurence, and S. Stich, 53-68. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195179675.003.0004>
- Sperber, Dan, and Deirdre Wilson. 1995. *Relevance: Communication and Cognition*. 2nd ed. Oxford: Blackwell.
- Sundararajan, Louise. 2002. "Religious Awe: Potential Contributions of Negative Theology to Psychology, 'Positive' or Otherwise." *Journal of Theoretical and Philosophical Psychology* 22: 174-197. <https://doi.org/10.1037/h0091221>
- Von Hofmannsthal, Hugo. (1902) 2005. *The Lord Chandos Letter and Other Writings*, trans. by Joel Rotenberg. New York: NYRB.
- Wassiliwizky, Eugen, Thomas Jacobsen, Jan Heinrich, Manuel Schneiderbauer, and Winfried Menninghaus. 2017. "Tears Falling on Goosebumps: Co-occurrence of Emotional Lacrimation and Emotional Piloerection Indicates a Psychophysiological Climax in Emotional Arousal." *Frontiers in Psychology*, 8: 41. <https://doi.org/10.3389/fpsyg.2017.00041>.
- Woolf, Virginia. 1925. *Mrs. Dalloway*. London: Hogarth.
- Woolf, Virginia. 1927. *To the Lighthouse*. London: Hogarth.
- Woolf, Virginia. (1928) 1985. "Moments of Being: 'Slater's Pins Have No Points.'" In *The Complete Shorter Fiction of Virginia Woolf*, ed. by Susan Dick, 209-214. London: The Hogarth Press. First published January 1928 in *Forum* (New York).
- Zhang, Dora. 2014. "Naming the Indescribable: Woolf, Russell, James and the Limits of Description." *New Literary History* 45 (1): 51-70. <https://doi.org/10.1353/nlh.2014.0009>

Hushed tones

Ceremonial treatment as a perspective shifter

Kate McCallum and Scott Mitchell

University of Brighton

A challenge posed by modern art, especially since the birth of the readymade, is how it is possible to discern art from non-art; institutional theories of art suggest that institutional sanctioning is the primary condition for the identification of an object as art. Here, we propose an explanation for the way that such institutional sanctioning might be reflected in the cognitive work of a viewer, and describe this effect as part of a continuum of behaviours that generate deeper, more varied and ultimately more effort-intensive interpretations of both art and other aspects of the human experience.

Keywords: effort investiture, weak communication, art interpretation, institutional theories of art, 'artworld', ostension, guru effect, effort-intensive interpretations

1. Introduction

Works of art are no longer expected to take great technical skill to produce, and can even consist in very ordinary objects. A striking example, and one that raises a number of interesting questions, is the case of 'found object' works, such as the readymades made popular by Marcel Duchamp in the early 20th century, in which ordinary objects are appropriated and displayed as art. When an object has been conceived and created with artistic goals in mind it is not difficult to see the viewer's experience of it as deeply tied to the particular properties of the object, properties that were developed and refined through the crafting process. A 'found object' work, though, is a clear example of an object that in a different context might easily be experienced in a totally different way. How it is that a very ordinary object can, in the right situation, be experienced as very interesting and profound, with complex and ineffable implications, is a difficult question to answer.

We believe that the notion of ostension, as used in relevance theory (Sperber and Wilson 1995), offers a convincing answer to this question. Discussing fine art in terms of communication might be seen as a controversial move, given the “[hostility] to what the jargon of authenticity calls the ‘message’” in the ‘contemporary situation of art’ described by art theorist Theodor Adorno (1997: 32). Since art can provoke an irreducible variety of subtle responses in its viewers, the fear is that discussing it in terms of a ‘message’ will present an overly simplistic picture that misses much of its substance and importance. The inappropriateness of a message-based description might indeed present an argument against treating art with a simple code model-based theory of communication. Relevance theory, however, describes communication in quite different terms, offering explanation in terms of active interpretive processes carried out on the basis of suppositions about the mind of another, and admitting the possibility that the results of these processes might be anything from the sharing of a relatively determinate set of ideas to effecting subtle shifts in a person’s apprehension of the world. As such, we believe that its characterisation of communication might be applied to fine art without taking an overly reductive view of its role and functioning.

Indeed such a move has been made by Deirdre Wilson for the case of literature, applied “...not to produce better interpretations than actual hearers or readers do, but to explain how they arrive at the interpretations they do construct, whether successfully or unsuccessfully” (Wilson 2011: 4). Wilson’s approach, further expanded in a later version of the paper, distinguishes comprehension from interpretation, and strong from weak communication, to account for the difference in kind between the interpretations reached by the reader at the level of sentences, and at the level of the book’s broader societal significance. Her convincing case for seeing even these less constrained, creative interpretations as making use of communicative mechanisms paves the way for us to take a similar approach to the creative, active interpretive process engaged in by a viewer of fine art.

2. Weak communication, ostension and perception

Wilson’s characterisation of comprehension and interpretation has its basis in the relevance theoretic characterisation of strong and weak communication. Essentially, when a proposition is strongly communicated, the speaker provides strong evidence that that interpretation was indeed intended, and this confidence in the attribution of intentionality means that the speaker retains a certain level of responsibility for the interpretation. By way of contrast, for interpretations where the evidence of intentionality is less decisive, “an addressee who decides to accept them must take some responsibility for their truth” (Wilson 2018: 189). This is often the case for

the kinds of interpretations of art that are most discussed by viewers, theorists and reviewers; those that are profound, illuminating, and that (while the interpretations offered by commentators might differ wildly) cannot be said to be incorrect, even by the artist.

To illustrate this distinction, an example for everyday communication might be as follows:

- (1) a. Marina: Are you going to the Hirst private view?
- b. Frank: I don't bother with the YBAs these days.

Note that Frank's answer does not directly answer Marina's question. The basic principle of relevance theory is that Marina's interpretation of Frank's response is informed by her expectation that Frank will be answering in a way that is relevant to her, where relevance is given a technical definition based on the effort that the utterance takes to interpret weighed against the cognitive effects that that interpretation might have for her, for example, to give an answer to her question.

Given that Marina knows (2a), there is a clear justification for interpretation (2b).

- (2) a. Hirst was known as a YBA (Young British Artist) early in his career.
- b. Frank will not go to the private view.

It might also be possible to interpolate the following:

- c. Frank sees the YBAs as outdated and irrelevant.
- d. Frank thinks that art that depends on shock value is poor art.

Though Frank's utterance could be said to provide some evidence to support (2c) and even (2d), it is a rather more weakly supported conclusion to draw. Marina may indeed come to entertain (2d) but, if she later heard Frank praising a friend's effort to make shocking art, she would not take Frank to be contradicting himself, and might instead conclude that he liked it better than she had thought.

Examples from verbal communication are more clearly suited for treatment with a theory of communication, but a whole range of verbal and non-verbal ostensive stimuli have long been addressed from a relevance theoretic perspective (Wharton 2008; Wharton 2003; Brabanter 2010; Madella and Wharton 2017). The key is the notion of ostension: the overt expression of intentionality. By virtue of their overtness, ostensive stimuli give "two layers of information" (Sperber and Wilson 1995: 50); they are meant to inform the audience of something, and they also make clear that the stimuli was produced deliberately, for the purpose of doing this. While a spoken utterance is one example of such stimuli, they can take many other forms. For example, let us say that Gilbert came in to George's studio to discuss an idea, and gets up to leave the room, with one of George's sketchbooks that he'd hastily snatched up to scribble in still in his hand. George notices this

and clears his throat ostensibly, causing Gilbert to pause and suddenly notice the sketchbook in his hand, and return it with a smile. George's throat-clearing had no verbal content, but was nonetheless communicative because Gilbert recognised that it was produced for his benefit, and meant to be recognised as such.

Verbal or non-verbal stimuli can have quite subtle effects in the mind of the hearer. Actions upon the world can help us to better perceive aspects of it, by virtue of our reading of another person's intentions and state of mind. Let us take an example: Bernd is visiting Hilla's hometown, and they are walking past the bay to the train station. Bernd gasps audibly at the bay as they approach, and Hilla is prompted to pause and enjoy the hills, waves and sea of pointed rooves. Though the scene is so familiar that she usually barely sees it any more, she is prompted to pay attention to it as if for the first time. Hilla's familiarity with the scenery is displaced momentarily as the gasp prompts her to approximate Bernd's experience, seeing with a fresh appreciation.

Speaking generally, when an artist declares an object to be art, what this consists in is a decision to deliberately and openly present this object as an art object. When something is presented as an art object, a viewer can then recognise an intention to declare it to be art, and can recognise that this intention was meant to be overt. When a viewer encounters an object in an art gallery, placed on a plinth with a title and name beside it, the setting gives evidence of its art-object status, such that artistic intentions are attributed to the named person, to the artist.

Our claim is that, just as Bernd's gasp prompted Hilla to enhance her perception of the beautiful view in her hometown, an artist's decision to declare an object to be art can enhance the kinds of thoughts a viewer is likely to entertain about that object.

3. Relevance in cognition and communication

Relevance theory describes considerations of relevance to govern not only communication but also cognition more broadly. Roughly speaking, they say, "human cognition tends to be geared to the maximisation of relevance" (Sperber and Wilson 1995: 261), that is, to try to maximise cognitive effects for cognitive effort. If they are right, then this principle would seem to make sense of our relatively inattentive interactions with familiar objects. It makes sense for everyday interactions with our material world to be relatively cognitively streamlined. Many objects encountered in everyday life are given very little thought, with attention paid only to the ways in which they help or hinder our aims.

Sperber and Wilson describe an individual's cognitive environment as follows: "a function of his physical environment and his cognitive abilities. It consists of

not only all the facts that he is aware of, but also all the facts that he is capable of becoming aware of, in his physical environment.” (Sperber and Wilson 1995: 39). This is the collection of facts that are *manifest* to an individual, that are available, but are not necessarily entertained. Indeed there might be a great many different things that we know or have known about a particular object, but in an everyday setting, very little reason to entertain them even if that object were in front of us. A great many things are manifest to an individual at any time; the details of the situation can decide which of these are actually entertained.

With the addition of ostension that is involved in declaring an object to be art, just such a reason might be given. Indeed the high status accorded to works of art in society provides quite a substantial justification; it has been argued that high status accorded to speakers can give an audience reason to invest extra interpretive effort in interpreting their utterances, particularly ones without single clear interpretations, in the expectation that this will be rewarded in the effects they derive (Sperber 2010). Works of art are both highly valued and discussed, and tend to evade encapsulation in one simple interpretation; as such, all of the motivation is there for a viewer to dig a little deeper when interpreting it, to entertain ideas that would otherwise be unlikely to seem relevant.

An example: Kara is driving home and sees a black plastic jerry can on the side of the road. If she notices it at all, she is unlikely to think much of it, other than perhaps thinking how much litter she’s seeing by the road these days. If she were to see someone waving it by the side of the road, however, she would be much more likely to note its function as a petrol container, and surmise that the person she is seeing has run out of petrol and is in a panic.

If, however, she encounters that same object in an exhibition by Romuald Hazoumè, stained by sea-salt, and adorned with decorations in a way that is reminiscent of a strange kind of African mask, it is suddenly possible to see this object in very different terms. For one thing, the hollowed-out form around the handle and gaping spout, a form generally given little attention in its own right, suddenly becomes an object of contemplation, seen as an unsettlingly expressive, slightly eerie face. For another, she might bring to mind the images she has seen of plastic-filled beaches on the African continent, and consider the way that drifting refuse such as this is implicated in global politics, floating around the world from richer countries to wash up on the beaches of Benin, manifestations of the complex flows of global economics.

The way that the jerry can is presented in the exhibition provides motivation for Kara to entertain quite different thoughts, ideas that were manifest in the other two examples, but that she did not have reason to bring to mind. This is achieved because she has reason to pay a very certain kind of attention to the object. Calling an object art is something associated with a very ceremonial, careful treatment,

prompting deeper contemplation, and the details of the presentation give her reason to shift her attention in one particular direction or another. The result can be that a viewer is prompted to entertain a quite different constellation of propositions in connection with that object than would otherwise be entertained.

There is reason to believe that some essential part of this effect is the result simply of the viewer's attribution of an intention to present the object as art. In the case of Marcel Duchamp's *Bottle Rack* (1914), all that the artist did was to place an existing, previously quite everyday object in a gallery, and Andy Warhol's *Brillo Box (Soap Pads)* (1964) was a faithful reproduction of the mass-produced boxes of cleaning products found all over the world. Both of these have gone down in history as important artworks, for their comment on the nature of art or on the new aesthetic environment created by consumer culture. It could not be argued in either case that the aesthetic properties of the objects alone could have been responsible, since these objects (or very similar ones) each had lives outside of the gallery that, in general, prompted no such responses. Once each was declared to be art by a well-known artist, though, it became subject to all kinds of scrutiny and interpretation for its aesthetic properties, for its position in society, and for the significance of the move made by the artist by declaring this object to be art.

For this intention to be recognised, it helps for the audience to have some kind of reason to believe in the artist's *sincerity* and the artist's *ability* to make that declaration, in an informed and genuine way. The disgruntled commentator, exiting a modern art gallery, saying 'maybe I should just declare my left boot to be art' is unlikely to be believed; nor is the six-year-old's scribbled drawing often scrutinised for its comment on modern society, inscrutable though it may be. The intention to declare that an object is an art-object is an intention imbued with heavy cultural context and significance, and for better or for worse, our readiness to attribute it to an artist is dependent in part on our belief in that person. After all, we are unlikely to invest that extra interpretive effort if we do not believe that it will be rewarded.

Our knowledge of the actual person is very limited and as such this might be provided by a famous name, the setting of a well-known gallery, or the "atmosphere of artistic theory" argued by Arthur Danto to give evidence of a work's participation in the canon of art history (Danto 1964: 201). We note that other evidence, similar in kind, might also reside in the object itself, such as evidence of skilled craft or labour-intensiveness. In *Vogel's Net: Traps as Artworks and Artworks as Traps*, Alfred Gell argues that respect for making can shift into a sort of spiritual appreciation that, for him, demonstrates an art-like endeavour. He discusses the case of an eel trap that was more carefully and intricately made than it needed to be, and outlines the spiritual connotations of this extra level of refinement (Gell 1996). Each of these provides a reason for an audience to treat an object with great respect: with hushed tones.

4. Hushed tones

The Western fine art world is known for its pomp and prestige. It is associated with high culture and fantastic sums of money, and art criticism is known for its eye-watering embellishment (for some exciting examples, see the *Spectator's* Pseuds' corner 2007). The great buying landmarks of the artistic calendar, such as *Frieze* and *Art Basel*, see sums of money moving that dwarf even the wealthy patronage that supported artists during the Renaissance, and the solemnity of huge, heavily international events of exchange like the *Venice Biennale* serve to reinforce this assignation of transnational value.

There is even a particular style of writing associated with the art world, termed International Art English (IAE) by Alix Rule and David Levine, that can identify a writer as “someone who does or does not get it” (Rule and Levine n.d.). To write in a style that sounds like it is a part of the art world, artists and critics go heavy on the adverbs, they eschew economy of words, regularly expanding upon apparently straightforward terms, and the proliferation of suffixes and definite articles give a faint impression of translation from the French. Their analysis fleshes out what a manifestation of Danto’s “atmosphere of artistic theory” (Danto 1964: 201) might look like on the ground. Many of what Rule and Levine call IAE’s “tics” show a tendency toward hyperbole and prolixity, a sign that the art world takes these writings to deal with very weighty and worthwhile material (with effects to offer to justify the effort the texts take to interpret). Both constituting and promulgating an atmosphere of art, these ‘tics’ demonstrate to other interlocutors how serious a writer is about art and demonstrate membership of the art community. The community is more likely to take seriously one of its members, and so thought about art becomes dominated by the sort of insider who produces this style of speech. In this way the serious style both encourages serious contemplation and promotes its own use by those in the know.

Though it can be tempting to poke a little fun at the art world, it is important to emphasise that with this treatment we do not level any accusation of fakery or deception at art. While Sperber describes a dependence on high-effort interpretation participating in “a vicious circle” which “might cause me to grant near-absolute authority to a source just because I don’t understand it” (2010: 591), we describe something more like a virtuous cycle. We believe that the hushed tones with which art is treated are an essential component in a process that really does allow an audience to have a profound, complex experience, a process that is leveraged with great skill by artists. The innovative interpretive work that the audience does has a dependence on assignations of value, and the bulk of the artist’s skill lies in the ability to choose a stimulus that warrants that assignation by rewarding that interpretive work.

We have made reference already to Arthur Danto, who argues that participation in an “artworld” just *is* what decides that something is a legitimate work of art (Danto 1964). This laid the groundwork for an institutional perspective on art, as developed by thinkers such as George Dickie (1969), which takes an artwork to simply be something that is accepted by and constitutive of the institution of the art world. This rather circular definition also seems to paint a rather pessimistic picture of art, with its hints of exclusivity and partiality, and little said about the enjoyment and power to be found in art. The description that we are putting forward can be taken as an explanation of how such an institutional theory might play out at the level of the viewer. By this view, the institutions provide motivation for an audience to make certain assignments of value and thus attribute certain intentions, such that that audience will invest an increased interpretive effort and entertain far more of the interesting thoughts available to them; in this way, the institution has a practical role to play so that we get all that we can out of art.

We also hope that this might help to place the Western fine art world on a spectrum with other human doings (not to mention delineate its relationship to other traditions of art-making). The world of big galleries and biennials can seem to operate according to an exceptional set of rules, but focusing on how motivation is given for profound interpretive work makes some of these appear less peculiar.

Returning to *Vogel's Net*, Gell associates the value placed on labour and skill with a spiritual attitude. Indeed it may be possible to apply this interpretive perspective to spaces that encourage contemplation, such as spiritual settings. If we consider the way in which such spaces prompt visitors to take time and to contemplate, it may be that these visitors are simply encouraged to entertain more of what already is manifest to them, and to create profound and important thoughts as a result. Just as the peculiarity and status of the gallery setting serves, for the artwork, to enhance this interpretive work, the fact that contemplative spaces exist outside of the ordinary, and the respect with which they are treated, might play a crucial part in bringing these contemplative experiences into being.

5. Evading summary

In the last section, we noted that according to this model, the skill of the found object artist will lie in the careful choice of stimulus, the identification of a suitable prompt. The success of a choice of object will depend on the constellation of associations that it is likely to make manifest to a viewer, and on the extent to which it points to exciting avenues of thought; a choice might fail if the interpretive work is too quickly resolvable, if one straightforward and finite interpretation appears

strongly favoured over others, enough so that a viewer's interpretive engagement will be (paradoxically) frustrated by finding an 'answer'.

Individual variation in interpretations is similarly something that must be accounted for in any description of art, especially since even the artist does not have to power to dismiss a reasonable interpretation (a case made in (Wilson 2018)). The artwork is sent out into the world to prompt interpretive work, and unlike many communicative stimuli, individual difference in responses is expected and embraced. In the book of Richard Wentworth's *Making Do and Getting By* series (Wentworth 2016), a photograph of a welly used to prop a door is presented, out of context, on the page of a beautifully produced art book. One viewer might gaze at this photograph and be reminded of the heavy door to an elderly relative's kitchen, another of a window he once spotted propped open using a violin; another might momentarily imagine a wearer for that boot, standing, nose against the door.

That which is manifest is a function of an *individual's* mind and environment, and thus is quite particular to an individual. The fact that the particular details may not be shared may be part of why the point of an artwork is difficult to put into words. The sum of those thoughts might be playful meditation on the contingent, improvised habits found in everyday life, and some aspect of this might be entertained by any one viewer, but they cannot be summarised in any single proposition.

This is where an artwork's value lies: by prompting us to dig deeper in our interpretive engagements with the world, art can help us to reach insights that are deeply connected to our own experiences and outlooks. What was so fascinating about the advent of readymade art was the discovery that even ordinary objects could be the instigators of this kind of deep interpretive work.

In sum: cultural institutions such as Danto's "artworld" may be subject to valid criticisms, but it is important to work on understanding the role that they play and what its real effects are. Examining how a work of art operates from an ostensive-inferential perspective seems to have great potential for answering just that kind of question at the level of individual experience. By taking the example of 'found object' art, we hope to have demonstrated the suitability of the notion of ostension for answering certain tricky questions about art, and perhaps so expanding our understanding of its role in our lives.

References

- Adorno, Theodore. W. 1997. *Aesthetic Theory*, ed. by Gretel Adorno, and Rolf Tiedemann, trans. by Robert Hullot-Kentor. London: AandC Black.
- Brabanter, Philippe. D. 2010. "Uttering Sentences Made Up of Words and Gestures." In *Explicit Communication*, ed. by Belen Soria, and Esther Romero, 199–216. London: Palgrave Macmillan. https://link.springer.com/chapter/10.1057/9780230292352_13. Accessed February 16, 2018. https://doi.org/10.1057/9780230292352_13
- Danto, Arthur. 1964. "The Artworld." *Journal of Philosophy* 61 (19): 571–584. <https://doi.org/10.2307/2022937>
- Dickie, George. 1969. "Defining Art." *American Philosophical Quarterly* 6 (3): 253–256.
- Duchamp, Marcel. 1914. *Bottle Rack*. Galvanised iron.
- Gell, Alfred. 1996. "Vogel's Net: Traps as Artworks and Artworks as Traps." *Journal of Material Culture* 1 (1): 15–38. <https://doi.org/10.1177/135918359600100102>
- Madella, Pauline, and Tim Wharton. 2017. "Prosodic Pointing and Gestures: Multimodality in Action." *Beyond Meaning*. Paper presented at National and Kapodistrian University of Athens, Athens, Greece.
- "Pseuds' corner," *The Spectator*, 2007. <https://www.spectator.co.uk/2007/10/pseuds-corner/>. Accessed May 24, 2019.
- Rule, Alix, and David Levine. *International Art English* (on-line). https://www.canopycanopycanopy.com/contents/international_art_english. Accessed May 24, 2019.
- Sperber, Dan. 2010. "The Guru Effect." *Review of Philosophy and Psychology* 1: 583–592. <https://doi.org/10.1007/s13164-010-0025-0>
- Sperber, Dan, and Deirdre Wilson. 1995. *Relevance: Communication and Cognition*. 2nd ed. Oxford: Blackwell.
- Warhol, Andy. 1964. *Brillo Boxes (Soap Pads)*. Paint and ink on wood.
- Wentworth, Richard. 2016. *Making Do and Getting By*. London: Koenig Books.
- Wharton, Tim. 2003. "Interjections, Language and the 'Showing/Saying' Continuum." *Pragmatics and Cognition* 11 (1): 39–91. <https://doi.org/10.1075/pc.11.1.o4wha>
- Wharton, Tim. 2008. "'Meaning_{NN}' and 'Showing': Gricean Intentions and Relevance-Theoretic Intentions." *Intercultural Pragmatics* (on-line), 5 (2). <http://www.degruyter.com/view/j/iprg.2008.5.issue-2/ip.2008.008/ip.2008.008.xml>. Accessed May 4, 2016.
- Wilson, Deirdre. 2011. "Relevance and the Interpretation of Literary Works." In *Observing Linguistic Phenomena: A Festschrift for Seiji Uchida*, ed. by Akiko Yoshimura, 3–19. Tokyo: Eihosha.
- Wilson, Deirdre. 2018. "Relevance Theory and Literary Interpretation." In *Reading Beyond the Code: Literature and Relevance Theory*, ed. by Terrence Cave, and Deirdre Wilson, 185–204. Oxford: Oxford University Press.

Onomatopoeia, impressions and text on screen

Ryoko Sasamoto
Dublin City University

The aim of this study is to shed light on the relationship between visual and verbal inputs into communication. To this end, I analysed the use of onomatopoeia as telop on Japanese TV in terms of the relevance theoretic notions of the showing-saying continuum and the definite-indefinite continuum. This analysis shows that onomatopoeia telop functions as a bridge between the verbal and non-verbal evidence in multimodal communicative acts, allowing for the interaction between different modes in terms of the distribution of intended imports in the two-dimensional view of meaning. Furthermore, this analysis, albeit in a limited manner, shows how relevance theory's dynamic view of meaning can be successfully applied to an examination of a highly multimodal communicative act.

Keywords: onomatopoeia, telop, textual inserts, determinate-indeterminate continuum, saying-showing continuum, impressions, non-verbal communication, direct/indirect evidence, ostension, Japanese TV, relevance

1. Introduction

This study is concerned with the relationship between verbal and non-verbal inputs into communication, with a particular focus on onomatopoeia used as textual inserts (or telop) on Japanese TV. With the advancement of technology, communication has become increasingly multimodal (c.f. Jewitt 2014). However, it is not yet clear how different modes in multimodal media are bound together as a communicative act.

Figure 1 provides an example of how onomatopoeia as part of textual insert is increasingly used across Japanese media.

(1)



Source: <https://ameblo.jp/himawari-atomu/entry-12245982082.html>

Figure 1. An example of onomatopoeia telop

In (1), the main textual insert says ‘*shiQkari*¹ tsukamu’ (hold properly). The overall image, including texts, show how tightly you must hold an egg to break it like a professional chef. The onomatopoeia ‘*kyuQ*’ in the speech bubble contributes this by bridging the gap between verbal and non-verbal, guiding viewers to the intended interpretation (i.e. how tight one should hold the egg) and reduces the chances of a misinterpretation.

This study will show how onomatopoeia’s *showing* (or non-coded) aspect, emphasised in the visual presentation as textual inserts, contribute to interpretation by binding elements of multimodal discourse beyond verbal meaning. That is, the textual inserts and onomatopoeia function as a bridge between verbal and non-verbal elements, helping viewers to recover the intended interpretation. In other words, in (1) you are to hold an egg tightly, not loosely.

In Section 2, I will present an overview of the highly multimodal nature of Japanese TV. Then, in Section 3, I will focus on the role of textual inserts in communication. In Section 4, I will turn to the discussion of onomatopoeia. Finally, in Section 5, I will examine a range of onomatopoeia inserted as part of telop on Japanese TV and discuss its role as a bridge between verbal meaning and meaning beyond verbal as part of a multimodal communicative act.

1. /Q/ represents geminate consonants.

2. Multimodality and meaning beyond verbal input

As Dwyer (2015) argues, we are witnessing a resurgence in the use of texts across contemporary digital media including an increasing amount of texts on the screen such as SDH, scrolling texts for breaking news, as well as the live feed of social media. In some cases, more creative ‘authorial titles’ (Pérez-González 2012), or visual presentations of text or images, are added to film and dramas as part of the narrative.² Such trends reflect the increasingly multimodal nature of contemporary media. This study is particularly concerned with the uses of intra-lingual textual inserts on TV that are different from what is conventionally used as an aide for the hard-of-hearing population. Unlike traditional SDH, the purpose of such textual inserts is to provide extra information or to add entertainment value to the programme. Japanese TV is a prime example of multimodal media representation (O’Hagan 2010, Sasamoto 2014, Sasamoto and Doherty 2014, Sasamoto et al 2017) which involves a “*rapid verbal exchange with no sonic gap left unfilled and the screen filled with text*” (Kato 2012, pg. [ch. 2, sec1, para 1, own translation]). As Kato (*ibid*) describes, on such a screen, both verbal and non-verbal inputs from different modes are orchestrated to provide a highly multimodal screen experience and become “talkative” in that each mode is rich in the information it brings onto the screen. What is particularly noticeable on Japanese TV, and one of the foci of this study, is textual inserts, or what is locally known as *telop*³ in Japan. *Telop* has become a standard editorial prop in Japanese media in entertainment shows⁴ but is increasingly used across different genres including news and drama (Sasamoto and Doherty 2016). According to Shitara (2011), the use of *telop* started in the 1960s where textual inserts were added simply for information purposes on music shows for example. The use of *telop* then became particularly prevalent in the 1990s (Shitara 2011). It is now used extensively in other Asian TV programmes (Park 2009, O’Hagan 2010, Wongseree 2018), and its use is slowly sneaking into the Western production.

Telop is often multi (and brightly) coloured and occupies a sizable part of the TV screen. Traditionally, *telop* often displayed the verbatim of spoken dialogue or narrative flows. This suggests, albeit in a limited sense, *telop* provides multimodal

-
2. The most notable example of such texts includes the BBC’s popular drama series *Sherlock*.
 3. The term ‘*telop*’ originated from the equipment used to transmit images without the use of a camera (Television Opaque Projector).
 4. In Japan, entertainment shows are generally called ‘variety shows’, a genre where programmes ‘incorporate more than one type of content’ (Koga 2013: 68).

translation within a TV programme it is used in, as telop displays a written equivalent of what is spoken or narrated. Still, telop was mainly added for enhanced entertainment value, rather than as an aid for those in need of accessibility support (personal communication, Yamamoto 2016). In recent years, however, there seems a new trend to insert telop, not of the verbatim representation of spoken dialogue or narrative flows, but telop of onomatopoeia.⁵ As it will be discussed in Section 4, Sasamoto and Jackson (2016) argue that onomatopoeia has both verbal and non-verbal aspects and as such, as a single (semi) lexical item, it is located on the *showing* and *saying* continuum. The nature of telop means that it is also visually displayed in a stylised presentation as well as representing verbal input. This suggests that telop of onomatopoeia has verbal aspects as well as meaning beyond verbal. The question here is, what is the relationship between visual and verbal inputs on the TV screen? How does the telop of onomatopoeia affect viewers' interpretation process? The current study, therefore, aims to account for the role of onomatopoeia telop to examine the contribution of non-verbal input in the interpretation of the multimodal communicative stimulus.

3. Role of Telop in multimodal contents

Despite telop being a somewhat under-researched topic, there is a consensus by scholars in Pragmatics and Audiovisual Translation (AVT) that the use of telop necessarily involves a mediator's intervention and manipulation (Shiota 2003, O'Hagan 2010, Sasamoto 2014), in that telop is inserted by the mediator (TV producer) rather than the speaker themselves, making it a case of secondary communication situation (Shiota 2003). However, unlike conventional secondary communication situations, which mostly refers to translation and interpreting, the role of telop is not for accessibility of media content. Instead, O'Hagan (2010) argues from the AVT perspective that telop plays a role of *Framing humour* and is often used to dramatise the trivial. Indeed, the verbal meaning of telop is often redundant. As mentioned in Section 1, telop often presents a verbatim of spoken utterances and as such, what is communicated via the verbal aspect of telop is not essential, especially as telop is used for decorative purposes, not as SDH.

5. It is well known that onomatopoeia is a defining characteristic of manga (Japanese comics), which influenced other types of media to insert onomatopoeia. Such practice would include the 1960's TV series Batman. It would not be surprising that the use of onomatopoeia as telop on TV is also influenced by manga.

To account for the role of telop in utterance interpretation from the perspective of relevance theory, I argued elsewhere that the mediator uses these captions as a highlighting device to draw viewers' attention to chosen elements, to manipulate viewers interpretation process to let viewers search for relevance in the way that suits the mediator (Sasamoto 2014, Sasamoto and Doherty 2013, 2016). Unlike other highlighting devices discussed in relevance-theoretic literature such as prosody (Wharton 2009), contrastive stress (Wilson and Wharton 2006, Scott 2017), or typography (Scott and Jackson 2019), telop is inserted by the mediator, which suggests that telop necessarily involves interpretive use of language. As Sperber and Wilson (1995) explain, ostension involves two layers: information that is being pointed to, and the information that the first information is being pointed out intentionally. By inserting telop, TV producers can put a spotlight on the part of publicly represented thoughts of who appears on the screen, which then guides viewers to seek relevance in the way that is suitable for the TV producer's intention (such as inducing laughter or giving rise to stylistic effects such as emphasis). The insertion of telop makes it even more manifest which part of the utterance, or TV programme even, viewers should pay attention to. That is, telop is a cue to ostension, pointing to direct and (often redundant) indirect evidence to communication, provided by a mediator (TV producer). By representing part of spoken utterances or narrative flow to viewers, telop takes advantage of interpretive use as a highlighting device and imposes it upon viewers. Furthermore, like typographical features (Scott and Jackson 2019), the extremely decorative presentation of telop plays an additional role in communication in that the stylistic choices of telop are driven by the TV producer's communicative intentions and guide the viewer to reach the intended interpretation. For example, the use of a font that is particular to the horror manga genre would lead viewers to recover feelings of unavoidable danger.

As discussed so far, the use of telop contributes to relevance by providing both direct and indirect evidence for communication, which leads viewers to the intended interpretation as desired by a TV producer. However, the indirect evidence which telop provides is redundant and therefore, its direct (or *showing*) aspect and the fact that it is shown in a particular stylised manner plays the central role in guiding viewers. This analysis shows the role of telop in communication and how it works on both verbal and non-verbal aspects of multimodal communication. In the next section, I will discuss the role of onomatopoeia.

4. Onomatopoeia

Onomatopoeia is generally defined as words that imitate sounds and is often considered to lie at the edge of language. As one of the main characteristics of onomatopoeia is the link between sound and meaning, onomatopoeia research has been dominated by sound-symbolism approaches.⁶ Sound symbolism based studies aim to explain the feeling of ‘fitness’ between the sound of a word and an image conveyed by the particular expression. In contrast, following on Wharton’s (2009) account of interjections, Sasamoto and Jackson (2016) take a relevance-theoretic approach and argue that onomatopoeia involves both *showing* and *saying* aspects of communication, allowing for communication of impressions (c.f. Sperber and Wilson 2015). According to Sperber and Wilson (2015: 138), an impression is “a change in the manifestness of an array of propositions which all bear on our understanding the same phenomenon, answering the same question, or deciding on the same issue.” As we argued, onomatopoeia carries both verbal and non-verbal meaning. As well as providing indirect (coded) evidence for communication, onomatopoeia also provides direct evidence for communication, where the speaker uses its resemblance to a phenomenon she wishes to communicate. This way, the use of onomatopoeia provides a cue to ostension: both direct and indirect evidence to the speaker’s thought, by pointing to an array of (often extremely weak) propositions, and contributes to relevance by giving rise to nebulous effects or impressions. The role of direct evidence (or the *showing* aspect of the onomatopoeia) via the sharing of perceptual resemblance is important for the communication of impressions such that if the perceptual resemblance is taken away, the communication of such impressions is no longer possible. Take a case of *bang* as an example. Oxford English Dictionary defines *bang* as ‘a sudden loud, sharp noise.’ However, as we can see in examples (1a) and (1b), replacing *bang* with this dictionary definition loses the impressions of the situation the use of the onomatopoeia gives rise to, although the propositional contents are more or less the same:

- (1) a. They closed the door with a bang.
- b. They closed the door with a sudden, loud, sharp noise.

While both utterances in (1a) and (1b) convey the same verbal meaning that the door was closed in a certain manner, (1a) also brings about impressions of a particular

6. There are a number of terminologies such as onomatopoeia, ideophones, mimetics, phonomimes, phenomimes, and psychomimes for expressions that denote imagery from different sensory domains such as sounds, motion, texture and states. In this study, the term *onomatopoeia* is used for convenience to include them all, regardless of the sensory domain each expression is linked to. However this does not commit this study to any of the debate regarding the terminology.

kind of noise (and vibration in the air even) in our mind. Such impressions are not communicated by the conceptual counterpart (1b). This is because in (1a), the onomatopoeia *bang* not only provides indirect (or coded) evidence for communication, which would be equivalent to its conceptual counterpart (1b), it also provides direct evidence (or *shows*) for communication, giving rise to certain impressions.

This shows how onomatopoeia adds a layer of meaning to standard verbal input, in that the use of onomatopoeia creates the fuller experience of being in a multimodal environment, beyond what can be communicated via the verbal meaning only. This would suggest that we can view onomatopoeia as a bridge between verbal and non-verbal elements in the multimodal discourse, and this approach opens up new avenues for analysis.

In the next section, I will turn to onomatopoeia *telop* that is employed increasingly on Japanese TV.

5. *Telop* and Onomatopoeia on TV

So far, I have explained the role of *telop* on TV and the role of onomatopoeia in communication. Both *telop* and onomatopoeia have a hybrid nature of verbal and non-verbal, providing both direct and indirect cues to ostension. In this section, I will focus on the role of onomatopoeia *telop* and its contribution to viewers' interpretation process with a particular focus on the multimodality of TV programmes. The aim of this section therefore is to answer the question: how do inputs from verbal and non-verbal channels interact with each other and contribute to relevance?

In relevance theory, it is acknowledged that meaning can range from determinate to indeterminate. As Sperber and Wilson (2015: 121) explain, 'there is a continuum of cases from those where the communicator's meaning is a proposition, or can be paraphrased as such, to those where it is not paraphrasable at all.' Further to this continuum, it is also acknowledged that communication can be on the continuum of *showing* and *meaning* (or *saying*), (cf. Wharton 2009, Sperber & Wilson 2015). That is, the distinction between verbal and non-verbal communication is, in fact, a continuum of *showing* and *meaning*. As Sperber and Wilson (2015: 119) explain, *meaning* is typically achieved by the use of language (coded evidence) while *showing* is typically achieved by displaying non-coded/verbal evidence.

Recognising these two continuums, Sperber and Wilson (2015: 123–125) illustrate how the intended import, or 'the overtly intended cognitive effect of a communicative act' (Sperber and Wilson 2015: 122) can occur within the two-dimensional space which is created by the interaction of these two continuums:

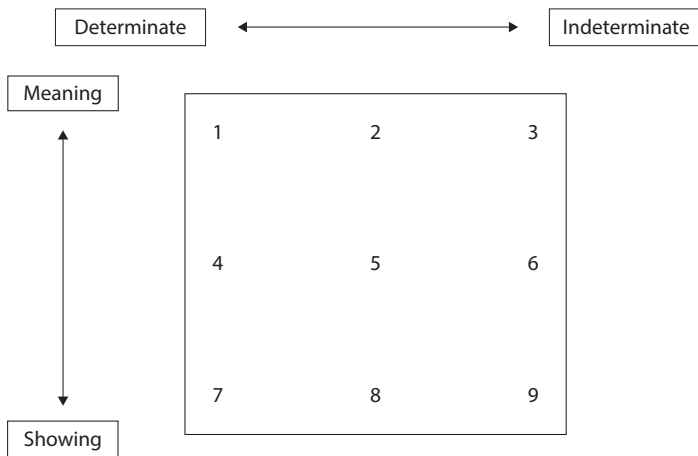


Figure 2. Two dimensional space of intended import (Sperber and Wilson 2015: 123)

Sperber and Wilson (2015: 123–125) illustrates how such intended import could occur using a range of examples. For example, the *determinate meaning* would involve cases such as a station attendant saying ‘12.48’ as a response to a passenger asking what time the next train is. A slightly less determinate case of meaning would be something like saying ‘I could kill for a glass of water.’ As Sperber and Wilson (2015: 123) explain, the intended import of this utterance is vaguer than a full proposition but it would still be easy to see roughly what type of conclusion the hearer is expected to recover. This utterance, therefore, can be seen as *semi-determinate meaning*. In contrast, *meaning* can also be indeterminate. A typical example would be a metaphorical utterance ‘Juliet is the sun.’ Sperber and Wilson (ibid) explain that this utterance is a case of a poetic metaphor, and the intended import of this utterance is extremely vague and cannot be put down to a propositional term. This is therefore a case of *indeterminate meaning*. Sometimes, the intended import can be determinate but falls in-between *meaning* and *showing*. For example, one could point at a post office on a map and say *that is the post office you are looking for*. The intended import can also be in-between *showing* and *meaning* as well as semi-determinate. Such cases would involve saying *I’m angry* with an angry facial expression, which would convey the propositional meaning as well as the impression of being angry (*semi-determinate showing/meaning*). Sperber and Wilson (2015: 124) further illustrate how the intended import can be in-between *meaning/showing* and indeterminate by using an example of saying *wow*, to a nice view. In this case, the intended import would amount only to a rough indication of a range of extremely weak propositions despite the use of a linguistic form *wow*. Finally, even if the communicative act is a clear case of *showing*, the intended import could range from determinate (e.g. pointing at a post office on a map when asked where

it is) to semi-determinate (pointing to ominous looking black clouds when asked ‘shall we do the laundry?’). In this case, while it would be easy to see roughly what the speaker intends to convey (e.g. it will rain soon), the intended import is still less than fully determinate. Finally, according to Sperber and Wilson (2015: 125), an example of indeterminate *showing* would be something like showing a picture of one’s child, as there is no proposition to recover as the intended import. While little attention has been paid explicitly to the analysis of multimodal discourse beyond facial expressions and bodily behaviours within the debate in terms of the *showing-meaning* and *determinate-indeterminate* continuums, this dynamic view of meaning provides a cognitively grounded framework to dissect the intricate relationships between different modes in a highly multimodal discourse such as TV programmes. TV programmes we are interested in here normally consist of spoken utterances, the people who appear on the screen, sound effects, background noises, moving images, telop as textual inserts, and a voiceover. Viewers interpret the most salient aspect of TV programmes, often spoken dialogue, in the context of the multimodal discourse including such inputs as listed above. So, how does this framework explain the orchestration of modes?

Let’s take the example of an entertainment show. Figure 3 is a screenshot taken from an entertainment programme that aims to provide life hacks in a light-hearted manner. The focus of this particular section is how to make crispy deep-fried oysters.



onomatopoeia telop: saQ! (onomatopoeia for crispness)

[Narrative voiceover: We can’t show you inside her fridge but keep (the oysters) in the fridge for 10 minutes and deep fry at 180 degrees then...]
Soredame! Pokapoka Onkatsu Special 10th January 2018

Figure 3. Onomatopoeia telop for cooking action

In this section, the TV crew is following the family of a local fisherman in a region famous for oysters. In this particular scene, the wife of the fisherman is showing how to make perfect deep-fried oysters, a popular winter dish in Japan. At the very moment the wife cuts the deep-fried oyster in two, one could hear the noise of the

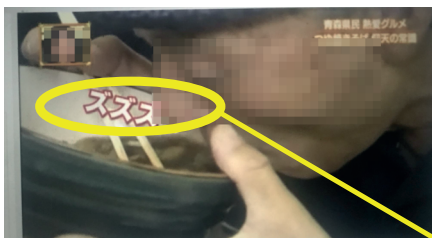
blade cutting into the meat. That is when the onomatopoeia *saQ* appears. There is no spoken utterance by the wife produced simultaneously to the *telop*, but there is a voiceover by the narrator.

If viewers were paying full attention to the programme, they might have noticed the noise of the oyster being cut. If they do, then they can recover an assumption about the quality of the fried oyster (how crispy it is) without insertion of onomatopoeia as *telop*. However, what the TV producer's ostension does by adding this onomatopoeia is to make impressions of the crispy oyster more manifest than it would have been otherwise, so that viewers cannot help but recover such an assumption. That is, the meaning beyond verbal input that is conveyed via the use of onomatopoeia bridges different modes in this programme and ensures that viewers recover the intended interpretation: the crispiness of the deep-fried oysters.

So, let's see what this means in terms of the two continuums of meaning and communication. The moving image on the screen, on its own, does not provide strong evidence that can be rendered as a proposition (*indeterminate showing*). However, other stimuli provided through different channels contribute to the interpretation. At the very moment when the *telop* is displayed, there is a voiceover by a narrator, which provides indirect evidence for communication (*determinate meaning*), as the voiceover is given in a pretty impersonal tone of voice and is easy to see roughly what type of conclusion the hearer is expected to recover from the input. The sound of cutting into the oyster, if taken as being ostensively provided, is a case of *showing* but it would be difficult to pin down exactly what conclusion to draw in a propositional sense and hence less than fully determinate (*indeterminate showing*). *Telop* of onomatopoeia *saQ*, in contrast, carries the TV producer's ostension as a highlighting device in that the use of *telop* *shows* the aspect of the scene which the TV producer wants viewers to focus on (i.e. to draw attention to the crispiness of the oyster, which was not part of the spoken element of the scene). The use of onomatopoeia-*telop* provides direct evidence (or *shows*) and activates certain impressions not necessarily salient without the *telop*. As this onomatopoeia is highly established and lexicalised, it would be reasonable to assume that this use of *telop* falls towards the determinate end of the continuum, although the nature of onomatopoeia means what is communicated via the use of onomatopoeia would not be fully propositional (*semi-determinate showing*). This analysis shows that a TV programme such as this would cover the full range of, or a large extent of, the two continuums of meaning and communication, allowing for a fuller viewing experience exploiting a range of meanings from verbal to beyond verbal meaning.⁷

7. This is not to be taken as viewers interpret each mode individually. Instead, this is an attempt to explain how verbal and non-verbal input interact with each other as a multimodal communicative act.

Next, Figure 4 is a screenshot from an entertainment show which features the characteristics of different regions in Japan. In this section, the focus is on the popularity of this particular noodle dish.



Onomatopoeia telop: zuzuzu (onomatopoeia for slurping)

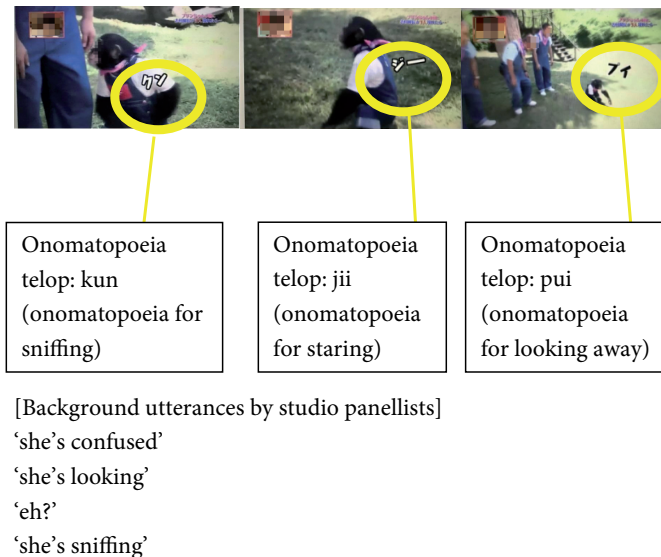
Narration: This man, happily slurps the noodle and drinks the soup

Himitsu no Kenmin Show 8th November 2018

Figure 4. Onomatopoeia telop for slurping

In this scene, the camera is following a man who is eating this popular dish. The onomatopoeia telop appears as he slurps the noodle and soup. As was the case for the previous example, viewers would be able to recover assumptions about his eating the noodles and enjoying the soup. However, the insertion of the telop makes the impression of him enjoying the dish much more salient. As was the case for Figure 3, the moving image on the screen itself does not provide strong evidence that can be rendered as a proposition (*indeterminate showing*), and other stimuli help viewers to narrow down the intended interpretation. The voiceover of the narration provides indirect (or verbal) evidence for communication, providing strong evidence, therefore guiding conveying determinate meaning, for his enjoying the dish (*determinate meaning*). However, the insertion of the onomatopoeia telop adds further evidence, this time indirect, to communication. The insertion of the onomatopoeia telop allows for the sharing of impressions, giving rise to a range of non-propositional effects (*semi/indeterminate showing/meaning*). This account shows how different types of meaning are bound together on screen by the onomatopoeia telop – the role of onomatopoeia telop is to bind the image on the screen that carries indeterminate meaning and the narrative that communicates a strongly evidenced assumption. Again, this illustrates how the communicator takes an advantage of a full range of continuums (determinate-indeterminate, and showing-meaning) to create a wholesome unit of ostensive stimulus in a multi-modal communicative act such as TV shows.

The uses of onomatopoeia *telop* in Figure 3 and 4 were simple cases of sound-based onomatopoeia and it does not require too much inference to make a connection between the use of onomatopoeia *telop* and the sound of cutting or the action of slurping. However, there are cases that require a massive amount of inference as it involves assigning specific interpretation of animal psychology based on their behaviour. See Figure 5:



Shimura Dobutsu En 8th November 2018

Figure 5. Onomatopoeia *telop* for animal action

This screenshot in Figure 3 is taken from an animal-themed entertainment show called *Shimura Zoo*, named after *Shimura Ken*, a famous comedian who takes the role of Zoo Director in this programme. The programme follows the life of certain animals and this episode is about a chimpanzee who has built a special friendship with the zoo director Shimura. In this scene, to find out whether the chimpanzee identifies the zoo director based on his appearance, smell or other factors, the comedian goes into her enclosure with two other male staff members, all wearing matching clothes and facial masks. The camera follows her trying to figure out who came into her enclosure, while the conversation between studio panellists watching this video can be heard in the background. Each screenshot contains one onomatopoeia *telop*. In (a), the onomatopoeia-*telop*, *kun*, appears when an utterance ‘she’s sniffing’ is produced in the background. The onomatopoeia *kun* describes a manner in which someone sniffs an object. In (a), it is evident from the image

on the screen that the chimpanzee is sniffing at the three men standing in front of her. Like the case of *saQ* in Figure 1, the use of onomatopoeia-telop links what is happening on screen with other stimuli provided via different modes. In contrast, the link between onomatopoeia and what is being displayed is not so obvious in (b) and (c). In (b), an onomatopoeic expression *jii*, which is often used to describe the manner of staring is inserted as telop. In (c), an onomatopoeia *pui*, is used as telop. *Pui* is an expression for describing the way someone looks away in a dismissive manner. Both *jii* and *pui* appear as studio panellists produce corresponding spoken utterance, conveying the interpretation by the studio panellists' interpretation of the animal behaviour. This illustrates how telop is a case of interpretive use, representing someone else's thoughts. The use of telop is carefully designed to guide viewers to search for relevance in a way that suits the intention of TV producers. Everything, including spoken utterances, facial expressions, behaviours of humans and animals that appear on TV to background images, noise and sound effects, are all ingredients that TV producers 'cook' to their liking to create a TV programme to their satisfaction.

In terms of the two continuums, the images displayed on the screen is a case of *showing* but without any further cue, the ostension is not strongly evidenced and no proposition will be rendered (*indeterminate showing*). However, the utterances produced by the studio panellists provides indirect evidence (meaning) for communication, as these utterances that can be heard in this scene provide the viewer with evidence for the type of conclusion the hearer is expected to recover (*determinate meaning*). The insertion of onomatopoeia telop adds further direct and indirect evidence by drawing viewers' attention to what would otherwise have been less salient. The nature of onomatopoeia means that the input will not be fully determinate but direct evidence provided by the use of onomatopoeia would contribute to relevance by filling the gap with further less-than-determinate meaning in the multimodal stimulus as a whole (*semi/indeterminate showing/meaning*). Again, the use of onomatopoeia telop contributes to relevance by binding verbal meaning and meaning beyond verbal together.

6. Conclusion

The aim of this study was to explain the role of onomatopoeia telop and the contribution of meaning beyond verbal in the interpretation of multimodal communicative acts. To shed light on the relationship between visual and verbal inputs into communication, I focused on the role of textual inserts (or telop) on media and onomatopoeia. This analysis shows how the assumptions which might have

not been previously entertained could now be made more salient by the use of onomatopoeia-telop, leading to a more strongly evidenced conclusion. That is, onomatopoeia in telop functions as a 'bridge' between the verbal and the non-verbal, and allows for the different modes to be orchestrated together as one multimodal discourse. In other words, the insertion of onomatopoeia provides a cue to the evidence of one's thought, or being a pointer to the evidence of mediator's thought, which then guides viewers to process the TV programme as a multimodal unit as a whole. This is why the onomatopoeia telop in Figure 1 will help viewers understand how tightly they should hold an egg.

This analysis explains how onomatopoeia telop is used as a bridge between verbal and non-verbal input in multimodal communicative acts. In particular, this was an attempt to show the interaction between different modes in terms of the distribution of intended imports in the two-dimensional view of meaning. This shows how onomatopoeia telop contributes to relevance, connecting the verbal and non-verbal interpretive cues. Furthermore, this analysis, albeit in a limited manner, shows how relevance theory's dynamic view of meaning can be successfully applied to an examination of a highly multimodal communicative act, which has been somewhat under-researched in relevance theory.

Bibliography

- Jewitt, Carey, ed. 2014. *The Routledge Handbook of Multimodal Analysis*. 2nd ed. London: Routledge.
- Dwyer, Tessa. 2015. "From Subtitles to SMS: Eye Tracking, Texting and Sherlock." *Refractory: A Journal of Entertainment Media* 25: 1-12. <https://refractory-journal.com/dwyer/>.
- Kato, Masao. 2012. *Terebi no nihongo* [Japanese language on TV]. Tokyo: Iwanami Shinsho.
- O'Hagan, Minako. 2010. "Japanese TV Entertainment: Framing Humour with Open Caption Telop." In *Translation, Humour and Media*, ed. by D. Chiaro, 70-88. London: Bloomsbury Academic.
- Park, Joseph Sung-Yul. 2009. "Regimenting Languages on Korean Television: Subtitles and Institutional Authority." *Text and Talk* 29 (5): 547-570. <https://doi.org/10.1515/TEXT.2009.029>
- Pérez-González, Luis. 2012. "Co-creational Subtitling in the Digital Media: Transformative and Authorial Practices." *International Journal of Cultural Studies* 16 (1): 3-21. <https://doi.org/10.1177/1367877912459145>
- Sasamoto, Ryoko. 2014. "Impact Caption as a Highlighting Device: Attempts at Viewer Manipulation on TV." *Discourse, Context and Media* 6: 1-10. <https://doi.org/10.1016/j.dcm.2014.03.003>
- Sasamoto, Ryoko, and Stephen Doherty. 2016. "Towards the Optimal Use of Impact Captions on TV Programmes." In *Conflict and Communication: A Changing Asia in a Globalising World*, ed. by Minako O'Hagan, and Qi Zhang, 210-247. Nova Science Publishers.
- Sasamoto, Ryoko, Minako O'Hagan, and Stephen Doherty. 2017. "Telop, Affect, and Media Design: A Multimodal Analysis of Japanese TV Programs." *Television and New Media* 18: 427-440. <https://doi.org/10.1177/1527476416677099>

- Scott, Kate, 2017. "Prosody, Procedures and Pragmatics." In *Semantics and Pragmatics: Drawing a Line*, ed. by I. Depraetere, and R. Salkie, 323-341. Berlin: Springer.
https://doi.org/10.1007/978-3-319-32247-6_18
- Scott, Kate, and Rebecca Jackson. 2019. "When Everything Stands Out, Nothing Does: Typography, Expectations and Procedures." In *Relevance Theory, Figuration and Continuity in Pragmatics*, ed. by Agnieszka Piskorska, 167-192. John Benjamins Publishing.
<https://doi.org/10.1075/ftl.8.06sco>
- Shiota, Eiko. 2003. "Kanrensei riron to telop no rikai [Relevance theory and understanding of telops]." *The Graduate School Review of the English Language and Literature* 31: 63-91.
- Shitara, Kaoru. 2011. "The Change of Telops on NHK Variety Shows." *Bulletin of Mukogawa Women's University, Humanities and Social Science*, 59: 1-9.
- Sperber, Dan, and Deirdre Wilson. 1995. *Relevance: Communication and Cognition*. 2nd ed. Oxford: Blackwell.
- Sperber, Dan, and Deirdre Wilson. 2015. "Beyond Speaker's Meaning." *Croatian Journal of Philosophy* 15 (44): 117-49.
- Wharton, Tim. 2009. *Pragmatics and Non-verbal Communication*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511635649>
- Wilson, Deirdre, and Tim Wharton. 2006. "Relevance and Prosody." *Journal of Pragmatics*. 38 (10): 1559-1579. <https://doi.org/10.1016/j.pragma.2005.04.012>

Before meaning

Creature construction, sea-sponges, lizards and Humean projection

Louis Cornell and Tim Wharton

University of Brighton

This chapter retraces Grice's thought experiment on 'creature construction' (Grice 1975a), which attempts to show how complex psychological processes can be shown to emerge from less complex behaviours. Beginning with simple organisms, Grice's experiment explores examines how an organism's psychological processes work to construct representations of the surrounding environment in such a way that those representations can be utilised for survival. The more complex the organism, the more nuanced are the processes that have developed to aid it in this task. Our goal in retracing the experiment is to shed light on those elements of psychological experience and communication which, in keeping with the subject of this volume, might be said to exist *beyond meaning*. In particular, we refer to the experience and communication of non-propositional phenomena such as emotions, sensations and feelings. This is a topic of which much has recently been made in pragmatics, particularly in relevance theory (Sperber and Wilson 1986/1995, 2015; Wilson and Carston 2019; de Saussure and Wharton 2019; Wharton and Strey 2019), and we claim insights from Gricean creature construction are illuminating.

Keywords: Amygdala, complexity, creature construction, meta-representation, philosophical psychology, sensorium, valancing, vigilance

1. Introduction

There are a number of people with a claim to having laid the foundations upon which modern pragmatics has been built. One person who would certainly figure in any list is Paul Grice. While Grice is most famous for what became known as his Theory of Conversation, his work on the Co-operative Principle and Maxims formed only one part of a much larger program. This famously included his Theory of Meaning (see Neale 1992). It also included his work on reason and rationality

and, less famously, his work on philosophical psychology and his thought experiment on 'creature construction' (Grice 1975a).

In this chapter we retrace this experiment, which attempts to show how complex psychological processes can be shown to emerge from less complex behaviours. Beginning with simple organisms, Grice examines how the organism's psychological processes work to construct representations of the surrounding environment in such a way that those representations can be utilised for survival. The more complex the organism, the more nuanced are the processes that have developed to aid it in this task. We also consider how these processes and their functional interrelations might be most accurately characterised in light of insights derived from neurological structures. We make no apologies for attempting throughout this chapter to bridge the gap between mind and brain by discussing physical correlates to the various stages, although we realise that neuroscientific discussion of this type is not usual in the context of a volume such as this. At some time, however, that gap must be bridged and this chapter, we hope, represents a small step in the right direction.

Our goal in retracing the experiment and, indeed, sketching the neurological correlates to the stages it describes is to shed light on those elements of psychological experience and communication which, in keeping with the subject of this volume, might be said to exist beyond meaning: In particular, we refer to the experience and communication of non-propositional phenomena such as emotions, sensations and feelings. This is a topic of which much has recently been made in pragmatics, particularly in relevance theory (Sperber and Wilson 1986/1995, 2015; Wilson and Carston 2019; de Saussure and Wharton 2019; Wharton and Strey 2019), and we claim insights from Gricean creature construction are illuminating.

Relevance theory is criticized for focusing solely on the epistemic, propositional dimension of communication. We can see how such criticisms might arise, but claim that, actually, the central claims of relevance theory are perfectly consistent with advances in disciplines in which the focus is entirely on less epistemic, non-propositional communication. Grice's work demonstrates wonderfully well that the more complex processes of psychology can never be completely disentangled from the simple ones and so there has to be room for the latter in an inferential model otherwise rich in complex metacognition. We hope therefore to demonstrate how the consistency between Relevance Theory's inferential model and these non-propositional components disappears only when subjectivity is not properly built into the framework of analysis.

In the next section we introduce Grice's thought experiment in more detail. Section 3 looks at the first stage of creature construction and how it relates to his work on meaning. In section 4 we examine how psychological processes complement each other to produce a sophisticated sensorium. Section 5 details how such a sensorium manifests natural meaning for a creature, and in Section 6 we show how

a self-embedded awareness of the sensorium's underlying psychological processes (a process Grice called 'Humean projection') underlies intentional communication. Section 7 concludes the chapter.¹

2. Grice's programme, meaning and creature construction

A comprehensive distillation of the full extent of Grice's 'programme' eludes us (though see Neale 1992; Grandy and Warner 2017). There are a range of reasons for this. One of these is undoubtedly the sheer ambition of his work. Another was Grice's apparent unwillingness to publish anything. To take the Theory of Conversation as a case in point, the talks that comprised the William James Lectures were never published as a whole. And there was nothing programmatic about the order in which those lectures that were made available at all were published. The first were Lectures VI and VII, which appeared in revised form as Grice (1968), and Lectures V and VI, which were published, again in revised form, as Grice (1969). None of these lectures mention the CP or maxims, which were introduced in Lecture II, and that lecture was not published until 1975 (Grice 1975b).

One paper that did make it to publication was *Meaning* (1957). Grice begins this paper by drawing a distinction between two senses of the word 'mean'. These he calls natural meaning (meaning_N) and non-natural meaning (meaning_{NN}). The two types of meaning are exemplified in (1) and (2) respectively:

- (1) Those circling vultures mean there is carrion directly below.
- (2) Those circling gestures mean the pilot is required to taxi the plane directly forward to the apron as indicated.

'Meaning' consists in an attempt to characterize the latter notion in terms of the expression and recognition of intentions, and the intentional model it inspired remains influential. But many people overlook the fact that while Grice begins his paper by establishing the two types of meaning expressed by different senses of the word, a central part of his wider program involved trying to characterize

1. In the thought experiment to which we refer, Grice himself was working towards a capacity for linguistic features such connectives, modal-operators, mood-indicators, and certain psychological states such as 'willing' and 'judging' (Grice 1975a: 41). But while it is true that the complex experience of reality afforded by humans is explained as the result of the internalisation of psychological states and allows for the capacity to form metarepresentational states which can be recursively embedded, we make no claims about the evolution of language, which seems to us to be a step too far. Accounting for meaning_{NN} in evolutionary terms is one thing, but accounting for the fact that, in natural language, phrases have heads, that dependencies are local and that there are such things as 'island' effects is a whole different ball-game, and one we do not feel qualified to play.

meaning_{NN} in terms of meaning_N. So, while it is true that meaning_N is introduced largely as a way of illustrating what he was not interested in, Grice was clear that the two are intimately related. Grice (1975b) suggests that the two forms could be understood as operating under a shared fundamental principle, which he articulated as ‘on some interpretation of the notion of consequence, *y*’s being the case is a consequence of *x*’ (1989: 292). As he put it elsewhere, ‘[i]n natural meaning, consequences are states of affairs; in non-natural meaning consequences are conceptions or complexes which involve conceptions’ (Grice 1989: 350).

Grice (1982) addresses this connection and presents us with a ‘myth’ about how human cognitive capacities might have spiralled in such a way that meaning_{NN} might have emerged from meaning_N. He asks us to imagine a creature which, when in pain, involuntarily emits a noise – for the sake of argument, a groan. At this stage, the groan means_N that the creature is in pain. Grice then moves through a succession of four further stages designed to show what needs to be added to this scenario in order to arrive at a full-fledged case of meaning_{NN}.

The thought experiment in Grice (1975a) presents a more nuanced account proposing that we consider ourselves in the role of a genitor, whose job it is to design a series of ‘pirots’ ascending in complexity. These pirots must necessarily be oriented towards survival, with psychological processes that effect that survival-orientation behaviourally. The final pirot in the series should possess complex psychological processes characteristic of a higher-order intelligence, e.g. rationalisation using recursive operators, but the emergence of these more complex psychological processes should be accountable for by the simpler psychological processes that preceded them

Grice’s interest in running the full gauntlet of psychological processes in this way was to be able to reflect upon insights that only emerge when the full portrait of the organism, with every level of process stacked and balanced on top of its predecessor, has been painted. His general definition of psychological meaning provides the framework from which to understand how meanings, both natural and non-natural, are experienced by the organism, and how the latter might develop out of the former. This method of inquiry stresses therefore a consistency with the notion of organisms evolving over many thousands of millennia, gradually developing increasingly sophisticated psychological processes which all ultimately orient around self-preservation and reproduction.

Since Grice’s publication, an increasing body of empirical work has examined how evolutionarily-later circuits are built on top of older circuits to provide further modulation of pre-existing functions (Anderson 2010). Studying the oldest structures of the brain, both ontogenetically and phylogenetically, has become essential to account for how these later circuits establish more complex patterns of behaviour

in the organism by augmenting the core operations carried out by older circuitry. 'Augmenting' is the key word here. Complexity does not replace simplicity: simplicity remains.

3. Evolutionary groundwork and the ultimate goal: The sea-sponge

To construct a philosophical psychology robust enough to bring meaning_N and meaning_{NN} together, we must begin by ensuring our philosophical sense of 'meaning' is securely situated as a psychological phenomenon. Grice notes how earlier behaviouristic attempts at explicitly defining psychological process such as 'wanting' or 'believing' are subject to a definitional circularity when constructed from an objective and externalised perspective (1975a: 23). The intrinsic inter-relations of such processes prevents any such straightforward definitional isolation, since we cannot arrive at a clear sense of what it means behaviourally for a creature to believe something without referring back to what it wants (its desires), nor what it desires without referring back to what it believes.

If this kind of ungroundable circularity is to beset any external examination of the contribution psychological processes make to the construction of meanings, then we would seem better advised to forego this kind of explicit definitional analysis entirely. In its place we can then substitute a search for implicit definitions, to be generated axiomatically through the inhabitation of a structure that models the unfolding subjectivity of the animal's perspective. This perspective, which de-emphasises any conceptual separation between 'environment' and 'organism', reverses the epistemological mechanism of analysing mental states ordinarily found in the objective perspective. Rather than focusing on the conditions in which an animal will entertain a certain mental state, given an environmental stimulus, the animal's perspective emphasises the likelihood that an environmental state has occurred, given a mental stimulus (Eliasmith 2006). We can then proceed with an exhibition of natural and non-natural meanings while correctly retaining the context of their ontology as psychological manifestations.

Our series of abstracted psychological structures (or pirots) begins at the most self-evident starting point of any system subject to evolutionary dynamics: self-replication via sufficiently prolonged bodily survival to ensure reproduction. Since no pirot could successfully navigate the environment without this goal already having been instantiated in the processes of its predecessor, and since we are not interested in the question of the origin of life, but with the unfolding of its psychological complexity, it offers a natural kernel out of which our principles on the emergence of meaning can begin to develop.

We might assume that, following some initial purely stochastic period of selection, the survival-and-propagation principle becomes recognisably embodied within our early pirot's structure as a pursued goal, rather than just an incidental property of a self-replicating biological unit. Such a point is reached once the pirot possesses mechanisms that allow it to: (i) hold this goal as a desired end-state; (ii) detect whether they are on track to meet it; and (iii) readjust themselves accordingly when they are not. This seems to provide the required conditions for the possession of psychological processes in the broadest sense of the term, i.e. processes that are internal to the pirot, and concerned with the processing of information states that map some form of environmental input to some form of behavioural output.

There are a variety of analogues that we could plunder from the phylogenetic tree to illustrate our early pirot. What matters at this stage is only that a precursory sense of natural meaning, as construed along Grice's general definition, 'on some interpretation of the notion of consequence, y 's being the case is a consequence of x ', is procedurally embodied in the structure of the organism. To that end we turn to the sea sponge. Despite lacking a true nervous system (Leys 2015), this organism possesses a very basic form of mapping sensory information to a motor response. Sea sponges are able to detect conditions in the environment, such as extremes of temperature and dilution of particles in the water, and respond to these conditions by contracting their bodies in order to protect tissue from clogging and damage (Bergquist 1974).

The basic mechanism responsible for instantiating a sponge's sensorium: sensory-motor neurons connecting sensory input to motor output. A lack of sensory input indicates one mode of environment (Figure 1A), while the presence of that input indicates the environment in a different mode (Figure 1B).

At this early stage of complexity, the animal's perspective of the environment remains purely embodied, with no mechanism for conscious experience. Nonetheless the mapping of a behavioural response to an environmental condition still provides the basis for an interactive relationship between, on the one hand, the rational structures that make up the creature, and on the other, everything external to those structures. Since the only variables at play for the sea sponge are the surrounding water conditions and its own contractility, the experiential states of its environment possess a singular binary pair of meanings: [DESIRABLE] and [UNDESIRABLE]. When the water conditions are [DESIRABLE], no contraction is necessary; it is as a consequence of the water conditions being in this state that the sponge does not need to contract. In a sense, then, the sort of psychological meaning that we are ultimately after can be found emerging as a property of animal-environment interaction the moment a sensory input becomes mapped to a behavioural output: the sponge's contractions are certainly meaningful_N.

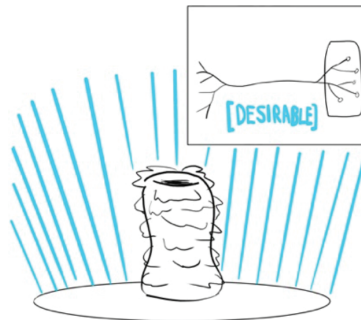


Figure 1A.

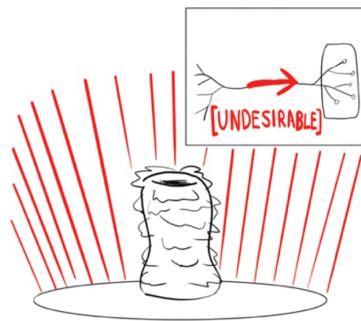


Figure 1B.

Such phylogenetic analogues are useful in demonstrating how our current level of pirot complexity might be instantiated within its own meaningful world. Yet the story of how a capacity to entertain non-natural meaning emerges can be interpreted in two ways simultaneously: once as the phylogenetic story of the evolution of humans, and once as the ontogenetic story of human developmental maturation. Another roughly analogous instantiation of the same pirot complexity level can thus be observed in a newborn infant, whose discernment of meanings in the environment and ability to respond to them are similarly collapsed into something resembling a singular pairing of input to output: when reality is feeling unpleasant, which it often is, it communicates as such to its mother.

As far as the stresses of decision-making are concerned, something sponge-like has a rather easy lot. The trade-off is that it also has a rather dull experience of life's meanings. Once, however, the lineage of a psychologically-simple organism begins drifting into a more behaviourally demanding environment, the successive generations of its descendants accumulate adaptive changes to pre-existing structures to better cope with the new pressures.

4. Development of a sophisticated sensorium

A self-propelling organism interacts with its surrounding environment in a much more involved manner, as it proactively moves itself towards the targets of its biological needs. Distinct problems relating to eating, drinking, resting, defence and reproduction now require the capacity to instantiate unique behavioural solutions. Anticipating each of these needs before their absence becomes critical, and allocating available resources in an attempt to satisfy each of them simultaneously, presents a balancing act termed 'allostasis' (Sterling 2012). The pursuit of the ultimate evolutionary goal now fragments into sub-goals, each one specialised to a particular sub-problem to be solved by the creature.

When there is only one goal to pursue, and only one means of pursuing it, the pirot can afford to pursue it in a structurally decentralised manner. But once the goal is composed of many other sub-goals, however, executive decisions need to be made to determine which sub-goal should be prioritised from moment to moment. The basic kind of sensory-motor feedback mechanism that was used to perpetuate the integrity of the sponge's bodily structure now becomes the precursor to a more centralised decision-making process, capable of choosing and sequencing distinct behaviours. This necessitates the emergence of a true sensorium of experience: an internalised map of the surrounding environment, devoted to the successful fulfilment of allostatic goals.

The moment-to-moment evaluation of which allostatic need requires the deployment of a behavioural strategy appear to takes place in the hypothalamus, a portion of the central nervous system dedicated towards fulfilling this function. Lesions in analogous areas of the rat and human hypothalamus have, for example, been implicated in the development of obesity. When the lesioned circuitry is unable to indicate satiation of its ingestive needs, the organism is unable to detect when it is no longer necessary to eat, leading to chronic over-eating (Swanson 2000: 121). The hypothalamus carries out its function by evaluating and prioritising competing needs, then initiating the associated behavioural strategy by sending signals to the brain stem, where hierarchically organised motor patterns are stored. The execution of this function provides the pirot with a level of autonomous agency that it previously lacked. Indeed, it begins to resemble something we would consider an 'animal', having developed animacy through its self-initiated behaviour. But the hypothalamus is just one component module that emerges to solve the problem of survival.

Decorticating studies, in which an animal's hypothalamus and brainstem are left intact while everything above is removed, establish the limits of hypothalamic function. Such an animal can produce coordinated limb movement when placed on a treadmill but displays no spontaneous locomotor activity when left alone

(Swanson 2000: 119). The animal retains its hypothalamically-regulated motivational states, becoming hyperactively engaged in deploying each of its satiation behaviours, but it is unable to form new memories. This leads to continual exploratory behaviour as it explores and re-explore the same territory without ever becoming familiarised.

As the logistical demands of coordinating allostasis increase, so too must the capacity to predict and perceive the environment (Clark 2016). To achieve this, associations of encountered sensory experience are stored as distributed patterns of activation across the sensory-motor cortices, where neuronal features are specialised for the storage of different sensory modalities. High-connectivity convergence zones then allow for the information contained in these disparate sensory modalities to be reconstructed as holistic representations of salience encountered in the past (Damasio 1989). Another area of the brain, the hippocampus, acts as a comparator circuit cross-examining incoming sensory input against these stored patterns of sensory experience (Gray 1995: 1168). By juxtaposing structural similarities in past experiences against the still-unfolding structures of the present, the hippocampus outputs a predictive stream continually aimed at capturing the next successor state to the present (Stachenfield et al. 2017). This future-predicting perceptual process can now be recruited by the hypothalamus to direct the sensorium into unfolding towards the end-targets of its allostatic goals.

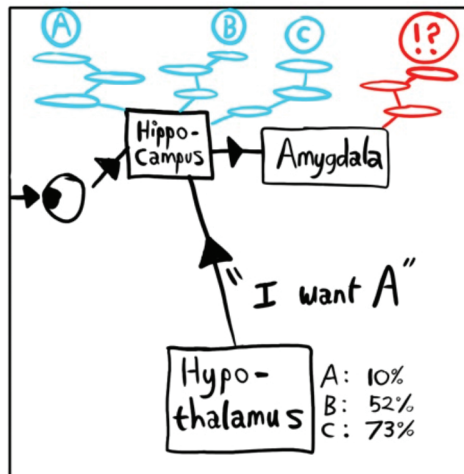


Figure 2.

Functional interaction between hypothalamus, hippocampus and amygdala. Allostatic needs (A, B, C) are recorded in some way and their respective pursuits prioritised by the hypothalamus. The current end-goal is communicated to the

hippocampus, where stored goal-orientation experiences are compared against incoming sensory data. When incoming data does not match stored experience, the hippocampus communicates to the amygdala, which affectively valences the prediction errors in order to both coordinate attention towards them and facilitate their integration into the predictive map.

When an interruption to the predictability of unfolding experience is detected by the hippocampal comparator, it sends signals to the densely inter-connected circuitry of the amygdala, inducing a physiological alert response (LeDoux 1992). This area of the brain has long been associated with the fear response. However, activity in the amygdala is highest when presented with more ambiguous stimuli; the stimulus of a fearful face, which would indicate a con-specific's detection of a threat, but not the threat itself, produces more activity than when the stimulus is an angry face, which would reflect a direct threat (Sander et al. 2003). This suggests the function of the amygdala is not to produce a fearful reaction, but to facilitate the response and processing of uncertainty in the environment.

When some area of the sensorium begins to transform in an unpredicted manner, the amygdala readies the creature to respond to the unpredicted stimuli, while simultaneously valencing its constituent sensory patterns with affect. Since attention is a finite resource, affective valencing guides the creature to attend to those information structures in its sensorium that are discrepant with its predictions. Since the rest of the perceptual field can be neatly categorised away by predictions, all that is then left to the conscious direction of cognitive attention are relevant stimuli, relevant precisely because it indicates unmapped information with potential allostatic implications. This increases the effectiveness of any deployed response, while also facilitating the integration of the unpredicted experience into the predictive map. Barrett (2017) has argued that our traditional categories of emotions are all constructed out of this singular process of affectively valencing unpredicted stimuli. The purpose of possessing a conscious sensorium experience, filled with affective subjectivity, can then be understood as enabling attention to be efficiently directed into the non-overlapping area between prediction and sensory input.

Relevance theory (Sperber and Wilson 1986/1995) defines relevance in terms of a cost-benefit function of cognitive effect versus cognitive effort. The greater value a given piece of information has in enabling a creature to accomplish its goals, the greater is its positive cognitive effect. This is offset against the cost, which is the degree of cognitive processing effort required to extract this information. Other things being equal, the greater the positive cognitive effects achieved by processing an input in a context of available assumptions, and the smaller the processing effort required, the greater the relevance of the input to the creature processing it. This cost-benefit analysis dictates the intensity with which any given unpredicted perceptual input will be affectively marked, and therefore manifest with

relevance to the creature. A very large and obvious threat or reward is much more attention-grabbing than one which is small and discrete.

The hippocampal-amygdala system works in tandem with the hypothalamus to produce an internalised model of the environment rich in natural meanings, which is experienced as the sensorium. The cluster of interrelated psychological processes that these survival circuits give rise to, such as memory and emotion, can only be understood when viewed from the ecological context of maximising survival (Glenberg 1997). This should demonstrate the weight and importance that the emotional system brings upon behaviour. Emotions are not trifling play-things of self-awareness, there only to enrich and deepen our experience of reality. Emotion, or affect, is intrinsically entwined with memory in the service of survival.

5. An environment of natural meanings

The next pirot in our series will possess all of the psychological processes enabled and instantiated by these neurologically-detailed systems and their interactions: (i) goal-directed behaviour initiated by a hypothalamic evaluation of allostatic priorities, which is (ii) perceptually facilitated by a predictive sensorium that attempts to match its predictions to incoming sensory data, with (iii) mismatches initiating an alert response aimed at simultaneously maximising the creature's survivability while integrating the unpredicted experience into the sensorium's predictive map for the future. Let us attend, then, to a lizard-like pirot, whose hypothalamic circuitry is currently indicating hunger.

Following some developmental learning period, the creature's internal model of the environment sets up a matrix of temporal and geographic associations in sensory input pattern sequences. The predicted end-targets of goals, or primary reinforcers, fold out chains of secondary reinforcers that indicate the end-target's spatio-temporal approach. Being optimised for attentive efficiency, the creature's nervous system always orients itself towards, and chooses between those unfolding transformations of the sensory field which are predicted to eventually lead to the end-target of goals. The result is a predictive map of allostatically desirable behavioural pathways, or movement corridors, which are projected into the present for the creature to choose from in support of its pursuits.

Grice's general definition of meaning, 'on some interpretation of the notion of consequence, x's being the case is a consequence of y', underlies these associations between primary and secondary reinforcers. As the end-target of a strategy aimed at satiating hunger, the percept of a lump of meat takes on a natural meaning in accordance with this definition frame: 'the imminent satiation of my hunger is a consequence of seeing this percept'. Or alternately, 'the desirability of ingesting this

percept is a consequence of its capacity to satiate my hunger'. Similarly, a spatial approach path leading to, or potentially leading to, a lump of meat, conveys opportunity for satiation.

These percepts are therefore constructed around the way in which an organism perceives their interactive relevance for the completion of goals. These are described as 'affordances' by Gibson (1986: 36) and constitute the building blocks of the predicted layer of the sensorium. An object is known when its affordances for interaction have been mapped, because that enables the creature to interact with or ignore that object accordingly, and otherwise not waste any further cognitive resources on it. Once mastered, the sensory information that gives rise to that object can be ignored, not manifesting in the creature's conscious experience of its sensorium until the movement corridor specified by goal-directed motor sequences presently necessitates its perceptual processing and interaction.

Exploratory behaviour is required to locate any portion of this reinforcement chain if it is not already in view, or to map any new territory in the environment. Anything that can result in further unfoldings of the sensorium, such as potential but yet-to-be-explored movement corridors, therefore carry a baseline of relevance, as unmapped environmental information may ultimately see itself being valenced into a reinforcement chain ending in a goal-target. Once a pattern is discerned from incoming sensory experience which successfully tokens the creature's currently active search category, i.e. the percept of a piece of meat, the sub-goal search-for-potential-food-source is considered accomplished, and the next sub-goal in the behavioural sequence, reduce-distance-between-potential-food-source, is loaded into the creature's behavioural execution.

The sensorium of a lizard-like pirot projects mapped chains of secondary reinforcers, ending in a primary reinforcer, on to incoming sensory data via the hippocampus (Figure 3A). The encountering of an obstacle blocking this path results in an amygdala-based learning and readiness protocol which aims to restore predictability to the sensorium and resume movement towards the goal (Figure 3B).

For a creature capable of self-directed ambulation, physical objects present locomotive obstacles which require circumnavigation. Let us suppose that our lizard encounters an obstacle: a tree, situated between the lizard and its lump of meat, which has suddenly toppled over and blocked the route. The visual information constituting the percept of a fallen tree blocking its path registers relevance to the creature in conveying the functional implication of thing-that-cannot-be-moved-through. In another context, if the creature were pursuing another goal, different affordance qualities of the percept might manifest their relevance – for example, if fallen trees were often home to a particular kind of grub the creature enjoyed, then its relevance would instead manifest as potential-source-of-food.

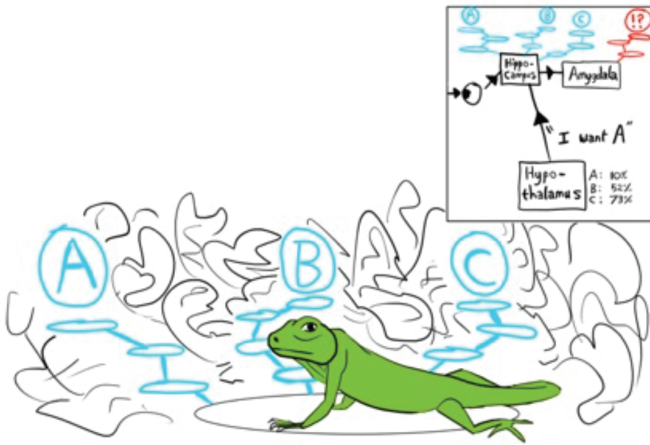


Figure 3A.

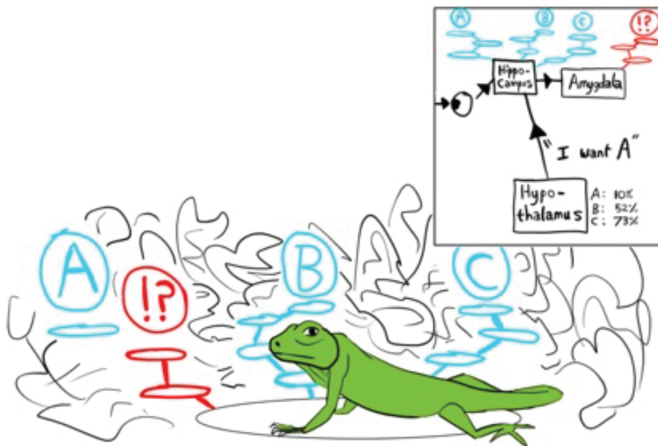


Figure 3B.

This interruption to the pirat's active goal-directed motor sequence elicits activity in the amygdala, which does two things: first, it sends signals that physiologically prepare the pirat for spontaneous movement; second, it affectively marks the stimuli constituting the unpredicted event so that it can be attended to, remembered and integrated into the sensorium's future predictability. The pirat now modifies its current active behavioural pattern, from move-(directly)-towards-the-food-source to

search-for-a-way-around-the-obstacle (so-that-I-may-continue-moving-towards-the-food-source). Perhaps it discovers it can crawl through a gap under the tree. This discovery is also affectively marked by the amygdala, so that this new successful search behaviour can be integrated into the sensorium's predictability; should the pirot find itself in a similar situation in the future, it will do well to remember what form of behaviour succeeded.

By constructing perceptual objects through the lens of their affordances for interaction, a creature's nervous system blinds itself to everything irrelevant to its goals. These affordances are not just implicit properties attached to sensory percepts, but rather shape the form of the percept itself at the point of perception, as supported by neurological evidence. Brain imaging studies reveal that areas of the premotor cortex associated with tool use are activated when an individual looks at a picture of a hammer (Chao and Martin 2000). Similar effects have also been found for the perception of food (Simmons et al. 2005), as pictures of food activate both the visual cortex and the gustatory processing area. What these results suggest is that the formation of perceptual categories relies on the neural reuse of these areas that are involved in behaviourally interacting with that object.

What a creature perceives when they focus attention upon any given object in their field of vision, then, are the qualities of that object that have relevance to the goals they are trying to accomplish, with the entire percept being constructed around that relevance. Relevance, situated within a contextualising goal-frame, is therefore a more apt description of what guides a creature's perception, forming the contours of salience in its sensorium, than the objective properties of the entities being represented, since all the creature can see are its goals manifesting through the percepts that compose that goal's movement corridor.

6. Humean projection: Psychological internalisation and métareprésentation

Because a pirot with a greater capacity to predict allostatically relevant transformations in the surrounding environment has a much greater chance at success, there is a strong selective pressure towards increasing predictive capacity in successive pirots. With an expanded capacity to hold, store and compare sensory-motor association structures in the cortex, the comparator circuitry can then be increasingly turned inwards, comparing predictions with themselves, rather than with incoming sensory input. Thoughts increasingly become a perceptual feature of the environment, whose affordances can be explored like any other percept.

When a pirot acquires the degree of complexity afforded by this unconstrained, internalised exploration of sensory pattern associations, they become

unimaginably rich in the interactive potential they might offer to con-specifics. For social organisms such as primates, therefore, a significant element of the surrounding environment which we are devoted to developing a predictive map of are the internal states of our con-specifics. The Machiavellian Intelligence Hypothesis (Byrne and Whiten 1988) suggests that dealing with this social complexity presented a particular challenge to early hominids, which led to a kind of ‘Cognitive Arms Race’, within which human cognitive abilities spiralled. The ability to interpret outward behaviour in terms of the psychological processes giving rise to it would have given an individual strong, predictive powers, and it would have been adaptive to become more and more adept at working out the thoughts and feelings of others (Humphrey 1984).

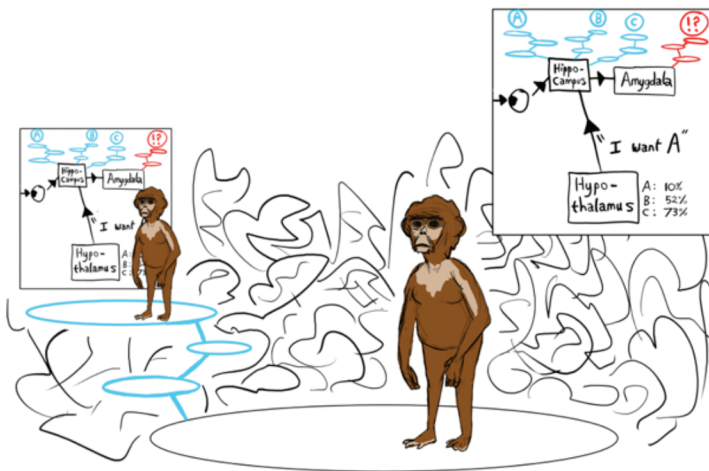


Figure 4.

A social primate concerns itself with predicting the internal states of its con-specifics, leading to a basic awareness of their psychological processes and knowledge structures. This produces the means for a sensorium to embed a simulation of itself, providing a neural substrate for the development of meta-cognitive processes.

The observation of conspecifics, with the aim of reconstructing their internal states in order to better predict their behaviour, may in turn have been the precursor to a creature’s capacity to reconstruct its own internal state. A nervous system attempting to produce a definitive abstraction of itself is hindered by the animal’s perspective, where ‘self’ and ‘reality’, ‘organism’ and ‘environment’, are conflated together in a conceptual dyad. This ultimately prevents the creature from producing a model of itself which is both integrated within, and differentiated as, a single abstraction.

When one pirot's sensorium constructs within itself a speculative map pertaining to the contents of a con-specific's sensorium, however, it unwittingly embarks on a process of self-discovery, since hiding within the thoughts of any such con-specific will be an objectified perspective of the speculating pirot. Determining the internal states of a con-specific eventually demands accounting for their perception of you (Rochat, 2018). The innate implicit sense of self, reflected in the animal's perspective of reality, can now be replaced with an explicit self-consciousness derived from the objective perspective with which conspecifics view you, and you view con-specifics.

Pressure to simulate each other's internal states as accurately as possible may, then, have provided the impetus to form categories that internalise psychological processes as manipulable conceptualisations. This is of what Grice called Humean projection, our propensity to 'project into the world items which properly (or primitively) considered, are really features of our states of mind' (1975: 41). Psychological processes such as 'knowing that' or 'wanting that' emerge from a place in which they merely support the animal's perspective to one in which they can be actively involved as objectified tools of awareness. Whereas a simple pirot might experience a state such as (3):

(3) 'wanting x'

A complex pirot is capable of experiencing a state such as (4):

(4) 'knowing that [I want x]'.

The introduction of recursion into the pirot's mental representations, allowing it to entertain representations about representations (or meta-representations Grice 1957, 1981; Sperber 2000) gives rise to an extra magnitude of complexity in the psychological processes that a pirot can entertain. Since goals may become consciously embedded in more elaborately recursive frameworks, the range of intentions that might be held by a complex pirot, as well as the resulting behaviour, expands dramatically.

The precise communication of those intentions forms the foundation upon which much of human interaction (and possibly human culture – see Sperber 1996) is built. The Communicative Principle of Relevance claims that by overtly displaying an intention to inform – producing an utterance or other ostensive stimulus – a communicator creates a presumption that the stimulus is at least relevant enough to be worth processing, and moreover, the most relevant one compatible with her own abilities and preferences: Alain is standing on a train platform. He is approached by a stranger, Brigitte, who asks him when the next train to London is. Alain's decision to respond to this inquiry with the words 'eleven fifty-eight' rather than 'twelve o'clock' is motivated by the Communicative Principle of Relevance. All manner of

culturally dependent, encyclopaedic information about trains, their punctuality, and the value that people place on preferring not to miss connections during a commute, inform Alain's awareness about precisely what kind of information, to what level of precision, is relevant to Brigitte in this context: had Alain rounded up the time – a perfectly appropriate thing to do in other contexts – then it may result in Brigitte missing her train.

On Grice's view, discourse and the recognition of intention operates through rational means; what is meant is rationally inferred from circumstance. But for Grice, rational inferences were by and large, conscious, reflective ones. Relevance theory argues such inferences may be rational, but not necessarily conscious. Because speakers share an innate understanding of the way unpredicted stimuli manifest with relevance in a sensorium, they automatically know how to contextually optimise the degree of relevance in any ostensive act of communication

Considerations over what sort of information might be relevant draw upon certain logical operations, such as conditionals, conjunctives and disjunctives, in determining what needs to be said and what can be left unsaid. However, this rationality is still built on top of the emotional systems that precede it. Damasio (1994) highlights the problem of considering a rational faculty detached from affect: if we are to try and arrive directly at a rationalistic analysis of the world, then for every potential interpretation of the world's structure that is technically valid, there are infinite alternative varieties that are equally valid. Any objectified perspective of reality which the rational faculty constructs must necessarily grow out of the animal's perspective, for without the latter there is nothing to constrain the infinite variability of equally unvalenced interpretations. A similar illustration of the problem is offered by Gibson: a field of grass simultaneously exists as a collection of atoms, and as a subsection of planet. But only at the resolution of the organism, and only with their presence, does it take the form of an environment (1986: 8).

To see how rational judgements amend emotionally valenced perception of environmental affordances, consider the following example: a lower-order pirot can see a cave as shelter as in (5):

(5) P judges $[C = S]$.

This perception of affordances reflects how the hypothalamus and hippocampal-amygdala systems constrain the perceptual search space by storing the affective valences of objects according to their relevance to goals, which are determined by the fundamental drives. With internalised psychological concepts, a higher-order pirot can also conjunct and embed their own representations:

(6) P^1 judges $[\text{if } C = S, \text{ and } P^2 \text{ wills } S, \text{ then } P^2 \text{ wills } C]$

One pirot (P^1 – Peter) can determine for himself that if a cave is shelter, and a fellow pirot (P^2 – Paul) is searching for shelter, then Paul’s search will be satisfied by the discovery of the cave. This draws upon various natural meanings: a cave, including its capacity to provide shelter; a fellow pirot and his desire to seek shelter; the situation of a pirot being shown shelter, resulting in a sense of indebtedness. Should Peter will or desire this situation of indebtedness to occur, then by representing the functional utility of the cave together with Paul’s need for shelter, he can perceive the path of behaviour required on its part to realise the desired situation. Pirots of this complexity are in a position to engage in acts of meaning_{NN} (7ab):

- (7) a. Peter utters ‘there’s a cave over here’
 b. Paul judges [Peter judges [if $C = S$, and Paul wills S , then Paul wills C]]

Given the communicative principle of relevance, Paul searches for the most straightforward way to assimilate the information provided by Peter into the contextual frame being set by Paul’s current allostatic goals – in this case, to find somewhere suitable to shelter. Peter’s activation of the conceptual representation CAVE in Paul’s sensorium using its associated semantic marker leads Paul to explore the manner in which a cave could present affordances that would satisfy the goal of sheltering.

So, as well as being in a position to engage in acts of meaning_{NN}, pirots of this complexity are also in a position to make friends.

7. Conclusion

For a whole range of reasons, scholars working on meaning have tended to persist with the view that the mental processes behind cognition and affect exist in two separate domains (see Wharton and Strey 2019). As a consequence, the emotional dimension of linguistic communication has tended to play a secondary role to the rational or cognitive one. Indeed, in many accounts it plays no role at all. The view that emotion is antithetical to cognition has its roots in ancient rationalist philosophy, in which emotion was assumed to be something of minor importance, a property of the soul rather than body: for Socrates the mind was limited by emotions. In recent work, Dezechache et al. (2013) have argued for a notion of emotional vigilance related to, but not entirely parallel with, Sperber et al.’s (2010) ‘epistemic vigilance’, those cognitive strategies by which hearers avoid being either accidentally or intentionally misinformed. According to them ‘receivers are endowed with a suite of mechanisms designed to modulate their responses to emotional signals’ (2013: 6).

Grice's thought experiment demonstrates not only how the psychologically complex can emerge from the psychologically simple, but also forces us to acknowledge the inextricable links between simplicity and complexity. Evolution does not do away with whatever simpler solutions to evolutionary problems that existed beforehand, particularly if they meet the demands of optimality. Before the evolution of DNA, for example, the earliest life-forms were self-replicating, auto-catalytic ribonucleic acid molecules (RNA). RNA was the earliest molecule to carry genetic information, coming into being around four billion years ago. (Covid-19 is one of the largest RNA viruses.) But although DNA is responsible for the replication and storage of genetic information in modern-day organisms, RNA still acts as an information transfer system: complex systems augment, rather than replace, simple ones.

Grice began by noticing that meaning_N and meaning_{NN} are intimately related: 'on some interpretation of the notion of consequence, y's being the case is a consequence of x' (1989: 292); '[i]n natural meaning, consequences are states of affairs; in non-natural meaning consequences are conceptions or complexes which involve conceptions' (Grice 1989: 350). Cases in which those consequences are incidental to evolutionary function – black clouds, circling vultures – are typically seen as paradigmatic cases of meaning_N. But equally authentic cases are involving an organism which possesses a mechanism enabling it to work towards the ultimate evolutionary goal of survival.

What has traditionally been considered the domain of non-natural meaning emerges from the property of conceptualisation which isolates out, through abstraction of stimulus patterns, functionally salient features of the creature's environment, and which then, in a way we are not equipped to speculate on, somehow develops a system to externalise these conceptualisations for efficient con-specific communication in the form of language. But as we say above the simpler processes – sensations, feelings and emotions – enrich and deepen our experience of reality. They are the nuts and bolts of not only the evolutionary game, but also everyday mental life. Without them an organism's success would be left to incalculably improbable odds and without them theories of utterance interpretation are woefully incomplete.

References

- Anderson, Michael. 2010. "Neural Reuse: A Fundamental Organizational Principle of the Brain." *Behavioral and Brain Sciences* 33: 245–266. <https://doi.org/10.1017/S0140525X10000853>
- Bergquist, Patricia. 1974. "Phylum Porifera." In *Textbook of Zoology Invertebrates*, 7th ed., ed. by Marshall, Andrew J. and Vale William Williams, 76–103. London and Basingstoke: The Macmillan Press Ltd.
- Barrett, Lisa Feldman. 2017. "The Theory of Constructed Emotion: An Active Inference Account of Interoception and Categorization." *Social Cognitive and Affective Neuroscience* 12 (11): 1833–1833. <https://doi.org/10.1093/scan/nsx060>.
- Byrne, Richard, and Andrew Whiten, eds. 1988. *Machiavellian Intelligence: Social Expertise and the Evolution of Intellect in Monkeys, Apes and Humans*. Oxford: Clarendon Press.
- Chao, Linda L., and Alex Martin. 2000. "Representation of Manipulable Man-Made Objects in the Dorsal Stream." *Neuroimage* 12: 478–484. <https://doi.org/10.1006/nimg.2000.0635>
- Clark, Andy. 2016. *Surfing Uncertainty*. New York: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780190217013.001.0001>
- Damasio, Antonio R. 1989. "Time-Locked Multiregional Retroactivation." *Cognition* 33: 25–62. [https://doi.org/10.1016/0010-0277\(89\)90005-X](https://doi.org/10.1016/0010-0277(89)90005-X)
- Damasio, Antonio R. 1994. *Descartes' Error*. New York: Avon Books.
- Dennett, Daniel. 1968. *Content and Consciousness*. Oxford: Routledge.
- Dezecache, Guillaume, Hugo Mercier, and Thomas Scott-Phillips. 2013. "An Evolutionary Approach to Emotional Communication." *Journal of Pragmatics* 59: 221–233. <https://doi.org/10.1016/j.pragma.2013.06.007>
- Eliasmith, Chris. 2006. "A New Perspective on Representational Problems." *Journal of Cognitive Science* 6: 97–123.
- Glenberg, Arthur M. 1997. "What Memory Is for?" *Behavioral and Brain Sciences* 20: 1–55. <https://doi.org/10.1017/S0140525X97000010>
- Gibson, James. 1986. *The Ecological Approach to Visual Perception*. Hove, East Sussex: Psychology Press.
- Grandy, Richard E., and Richard Warner. 2017. "Paul Grice." In *The Stanford Encyclopedia of Philosophy* (Winter 2017 Edition), ed. by Edward N. Zalta. <https://plato.stanford.edu/archives/win2017/entries/grice/>.
- Gray, Jeffrey. 1995. "A Model of the Limbic System and Basal Ganglia." In *The Cognitive Neurosciences*, ed. by Michael S. Gazzaniga, 1165–1176. Cambridge, MA: The MIT Press.
- Grice, H. Paul. 1957. "Meaning." In *Philosophical Review* 66: 377–388. <https://doi.org/10.2307/2182440>
- Grice, H. Paul. 1969. "Utterer's Meaning and Intentions." *Philosophical Review* 78: 147–177. <https://doi.org/10.2307/2184179>
- Grice, Paul. 1975a. "Method in Philosophical Psychology (from the Banal to the Bizarre)." *Proceedings and Addresses of the American Philosophical Association* 48: 23–53. <https://doi.org/10.2307/3129859>
- Grice, H. Paul. 1975b. "Logic and Conversation." In *Speech Acts*, ed. by Peter Cole, and Jerry Morgan, 41–58. Vol. 3 of *Syntax and Semantics*. New York: Academic Press. https://doi.org/10.1163/9789004368811_003
- Grice, H. Paul. 1982. "Meaning Revisited." In *Mutual Knowledge*, ed. by Neilson Smith. London: Academic Press.

- Grice, H. Paul. 1989. *Studies in the Way of Words*. Cambridge, MA: Harvard University Press.
- Humphrey, Nicholas. 1984. *Consciousness Regained*. Oxford: Oxford University Press.
- LeDoux, Joseph. 1992. "Emotion and the Amygdala." In *The Amygdala: Neurobiological Aspects of Emotion, Memory, and Mental Dysfunction*, ed. by John P. Aggleton, 339-351. Wiley-Liss.
- LeDoux, Joseph. 2012. "Rethinking the Emotional Brain." *Neuron* 73 (4): 653-673.
<https://doi.org/10.1016/j.neuron.2012.02.004>
- Leys, Sally. 2015. "Elements of a 'Nervous System' in Sponges." *Journal of Experimental Biology* 218: 581-591. <https://doi.org/10.1242/jeb.110817>
- Macnab Robert, and Daniel Koshland Jr. 1972. "The Gradient-Sensing Mechanism in Bacterial Chemotaxis." *PNAS USA* 69: 2509-2512. [PubMed: 4560688].
<https://doi.org/10.1073/pnas.69.9.2509>
- Neale, Stephen. 1992. "Paul Grice and the Philosophy of Language." *Linguistics and Philosophy* 15 (5): 509-559. <https://doi.org/10.1007/BF00630629>
- Rochat, Philippe. 2018. "The Ontogeny of Human Self-Consciousness." *Current Directions in Psychological Science* 27 (5): 345-350. <https://doi.org/10.1177/0963721418760236>
- Sander, David, Jordan Grafman, and Tiziana Zalla. 2003. "The Human Amygdala: An Evolved System for Relevance Detection." *Reviews in the Neurosciences* 14 (4): 303-316.
<https://doi.org/10.1515/REVNEURO.2003.14.4.303>
- de Saussure, Louis, and Tim Wharton. 2019. "La notion de pertinence au défi des effets émotionnels." *TIPA* 35. <http://journals.openedition.org/tipa/3068>.
<https://doi.org/10.4000/tipa.3068>
- Simmons, W. Kyle, Alex Martin, and Lawrence W. Barsalou. 2005. "Pictures of Appetizing Foods Activate Gustatory Cortices for Taste and Reward." *Cerebral Cortex* 15: 1602-1608.
<https://doi.org/10.1093/cercor/bhio38>
- Skipper, Jeremy. 2014. "Echoes of the Spoken Past: How Auditory Cortex Hears Context during Speech Perception." *Philosophical Transactions of the Royal Society B* 369 (1651).
<https://doi.org/10.1098/rstb.2013.0297>
- Sperber, Dan. 1996. *Explaining Culture*. Oxford: Blackwell.
- Sperber, Dan, ed. 2000. *Metarepresentations: A Multidisciplinary Perspective*. Oxford: Oxford University Press.
- Sperber, Dan, Fabrice Clément, Christophe Heintz, Olivier Mascaro, Hugo Mercier, Gloria Origgi, and Deirdre Wilson. 2010. "Epistemic Vigilance." *Mind and Language* 25: 359-393.
<https://doi.org/10.1111/j.1468-0017.2010.01394.x>
- Sperber, Dan, and Deirdre Wilson. (1986) 1995. *Relevance: Communication and Cognition*. Oxford: Blackwell.
- Sperber, Dan, and Deirdre Wilson. 2015. "Beyond Speaker's Meaning." *Croatian Journal of Philosophy* 15 (44): 117-149.
- Stachenfeld, Kimberly L., Matthew M. Botvinick, and Samuel J. Gershman. 2017. "The Hippocampus as a Predictive Map." *Nature Neuroscience* 20 (11): 1643-1653.
<https://doi.org/10.1038/nn.4650>
- Swanson, Larry. 2000. "Cerebral Hemisphere Regulation of Motivated Behavior." *Brain Research* 886: 113-164. [https://doi.org/10.1016/S0006-8993\(00\)02905-X](https://doi.org/10.1016/S0006-8993(00)02905-X)
- Swanson, Larry. 2003. *Brain Architecture*. New York: Oxford University Press.
- Sterling, Peter. 2012. "Allostasis: A Model of Predictive Regulation." *Physiology and Behavior* 106 (1): 5-15. <https://doi.org/10.1016/j.physbeh.2011.06.004>

- Tooby, John, and Leda Cosmides. 2008. "The Evolutionary Psychology of the Emotions and Their Relationship to Internal Regulatory Variables." In *Handbook of Emotions*, 3rd ed., ed. by Michael Lewis, Jeannette M. Haviland-Jones, and Lisa Feldman Barrett, 114-137. New York: Guilford.
- Wharton, Tim, and Claudia Strey. 2019. "Slave to the Passions: Making Emotions Relevant." In *Relevance, Pragmatics and Interpretation*, ed. by Robyn Carston, Billy Clark, and Kate Scott, 253-267. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290593.022>
- Wharton, Tim, and Louis de Saussure. Forthcoming. "The Pragmatics of Emotion: Love, Argument, Conflict." In *Language and Emotion: An International Handbook*, ed. by Gesine Lenore Schiewer, Jeanette Altarriba, and Bee Chin Ng. Berlin: De Gruyter Mouton.
- Wilson, Deirdre, and Robyn Carston. 2019. "Pragmatics and the Challenge of 'Non-propositional' Effects." *Journal of Pragmatics* 145: 31-38. <https://doi.org/10.1016/j.pragma.2019.01.005>

Index

A

- acceptance 43, 45, 51–53, 58
 - comprehension versus 50n, 51
- affect 81, 85, 90, 94, 110, 114, 186–87, 193–94
- allegory 123–24, 127, 130
- amygdala 65–66, 185–90, 193
- art 1–2, 7, 66, 99–100, 139, 151–52, 154–59
 - interpretation of 18, 153
 - institutional theories of 151
- 'artworld' 158–59

C

- chill 7, 135, 139–40, 145
- cognitive processing 186
- communication 1–3, 5, 7, 11, 13–14, 16, 18–19, 21, 23, 24n, 44–45, 54, 57, 84, 92, 99–103, 105, 107, 119–120, 141, 152–54, 161–62, 165–67, 170–71, 173, 177–78, 192–93
 - non-intentional 11, 135
 - non-verbal 161, 167
 - ostensive 13–14, 19n, 20, 22–23, 27, 29, 33, 39
 - ostensive-inferential 44, 57, 83, 120–21
 - weak 13, 18, 68, 126, 152
- complexity 61, 73, 85, 136, 180–83, 190–92, 194–95
- conceptual mapping 80, 82, 87, 90–91, 93
- context 7, 17, 19, 24, 31, 37, 53, 61, 63–64, 70, 72–73, 81, 84, 88, 91, 93, 114, 126, 135–36, 143, 147, 156, 181, 186
- contrastive stress 6, 29–40, 47–48, 48n, 58, 165
- conventional 11, 61–62, 65–66, 83, 86–87, 93, 164

conversational background

46, 49, 55

conversational constraint

45
cultural 13, 27, 82, 89, 122, 122n, 135, 143, 156, 159

D

- determinate-indeterminate continuum 169
- direct evidence 43–44, 166–67, 170, 173
- discursive presupposition 43, 45–46, 47n.2, 49–53, 55, 58

E

- effort investiture 151
- effort-intensive interpretation 151
- emergent implicature 119, 126–30
- emotion 1–3, 6, 8, 30, 61–66, 69, 72–73, 85, 94, 102–103, 105, 108, 110, 115, 130, 140, 177–78, 186–87, 194–95
 - emotional effect 16n, 63n.5, 111, 142
- encoding 38–40
- epiphany 101, 108, 138, 147
- epistemic effect 56, 59
- epistemic error 45, 55, 59
- epistemic vigilance 52, 105, 194
- evolution 139, 179n, 183, 195
 - see also lizard, sea sponge
- expectation of relevance 23–24, 40, 83–84, 99–100, 126–127, 129
- expectation of levels of cognitive effects 34–35, 37
- experiential import 102, 105, 107, 109, 112, 115
- explicature 13, 38, 68
- expressive 1, 111, 115

F

fiction 119, 123, 125, 145

G

- Grice 3, 8, 12–14, 32, 44, 57, 107, 177–81, 192–93, 195 see also maxim, natural meaning (meaningN), non-natural meaning (meaningNN)
- guru effect 151

H

- hippocampus 185–86, 188
- humour 119, 121, 121n.1–2, 125n, 130, 164 see also joke

I

- image 2, 6, 61–65, 66n.9, 67, 72–73, 155, 162–63, 163n.3, 166, 169–73
- imagination 7, 72, 106, 115
- implicated premise 45–46, 49–53, 58, 128
- implicature 5, 7, 12–13, 38–39, 46, 49–55, 58, 67–68, 70–73, 85–87, 92–93, 108, 119–22, 124, 126–30, 141, 143
- impression 1–2, 5, 44, 62–63, 67–69, 89, 99–102, 104–106, 108–110, 112–15, 129–30, 157, 166–68, 170–71
- indirect evidence 43, 165–66, 170, 173
- ineffability 1, 6–7, 111, 143–44, 148
- inference 1–3, 5, 11–12, 14–15, 15n, 17–19, 21, 25–27, 38–39, 50–51, 62, 67–68, 83, 86–87, 94, 100, 102, 105–106, 108, 111–12, 114, 122, 126, 172, 193
- irony 105–6, 111, 119, 125, 127, 130, 146

J

joke 7, 119–130 *see also* humour

L

learning 91, 187–88

less ostensive meaning 46, 53,
55–56, 58

lexical gap 73

literal 61, 63–66, 63n.7, 68–73,
84, 87, 123–24, 129

literary work 7, 18, 99–101, 101n,
103–104, 109, 112–15, 123, 127
see also fiction, literature

literature 1–2, 6, 18, 79, 85,
99–103, 105–106, 110, 112–15,
135, 139n, 140, 145–46, 148, 152
see also fiction, literary work

lizard 187–88

M

maxim 12, 177, 179

memory 5–6, 56–57, 59, 61–62,
66–67, 83, 85, 99, 104, 106,
111–12, 115, 122, 136, 139, 145,
185, 187

metarepresentation 145, 148, 190

metacognitive acquaintance

101, 106, 109, 113

metaphor 1, 4, 6, 61–68, 70,
72–73, 79–95, 101, 108, 119,
124–27, 130, 143, 146, 148

poetic 4, 44, 79–81, 84–86,
88, 92–95, 109, 168 *see also*

poetic effect, time

Moses Illusion 55, 59

music 1, 7, 79, 139–40, 143, 145

N

natural highlighting 30, 32,
36–37, 40, 48

natural meaning (meaningN)
178–82, 187, 195

non-creative metaphor 61 *see also*
metaphor

non-natural meaning

(meaningNN) 3–4, 12–13,
27, 33, 43–45, 179–81, 179n,
183, 194–95

non-propositional meaning 94

O

onomatopoeia 7, 88, 161–62,
164–67, 169–74

ostension 7, 13–14, 16n, 18,
20, 22, 24–27, 29–30, 33–37,
40, 49, 104n, 152–53, 155, 159,
165–66, 170, 173

P

perception 6, 61, 63n.4, 64–66,
83, 114, 135–38, 142–45, 147–
48, 152, 154, 190, 192–93

philosophical psychology

57–58, 178, 181

poetic effect 57, 83–94, 108, 141,
143 *see also* poetic metaphor,
metaphor

pointing 32–33, 37–38, 47–48

pragmatics 1–3, 7, 11–15, 17–19,
26, 29, 33, 43–44, 79, 99–102,
130, 177–78

inferential 2, 11, 14, 27

prediction error 137–39, 186

presuppositional effect 6, 54

procedural meaning 6, 29–30,
37–39, 111, 115

processing background

information 43

processing effort 16, 34–35, 38,
83–84, 107, 113, 186

propositional attitude 3, 39,
119, 125, 127, 129–30

propositional meaning 63,
63n.5, 68, 72–73, 104, 107, 113,
115, 119, 125, 168

prosody 33–34, 36–38, 40, 48,
104n, 165

prosodic expectation 29, 30

R

reference assignment 38–39

relevance 6, 14, 16–24, 26,

30, 33–38, 40, 44, 46, 48–54,

58, 80, 83–84, 87–88, 92,

99–100, 102, 104, 107–109,

113–115, 120, 123, 126–27, 129,

141, 153–54, 165–67, 173–74,

186–88, 190, 192–94 *see also*

relevance theory

relevance theory 2–3, 5–7,

13–14, 16, 17n, 18, 20, 22–23,

26, 33, 67, 79–85, 93–95, 100,

102, 107, 110, 115, 120, 122,

135, 141, 152–54, 165, 167,

174, 177–78, 186, 193 *see also*

relevance

S

saying-showing continuum 161

sea sponge 181–82

semantic presupposition 43,

45–49, 52–53, 55, 58

sensorium 178, 182, 184–88,

190–94

sublime 135, 138–40, 145,

147–48 *see also* ineffability

surprise 64, 135–36, 139–40,

142, 148

T

telop 7, 161–65, 167, 169–74

textual insert 161–63, 169, 173

time 6, 79–83, 86–95, 147 *see also*
poetic metaphor

V

valancing 177

vigilance 52, 105, 194

Despite the fact that they are often crucial to our understanding, the vague, ineffable elements of language use and communication have received much less attention from linguists than the more concrete, effable ones. This has left a range of important questions unanswered. How might we account for the communication of non-propositional phenomena such as moods, emotions and impressions? What type of cognitive response do these phenomena trigger, if not conceptual or propositional? Do creative metaphors and unknown words in second languages and other 'pointers' to 'conceptual regions' communicate concepts learned from language alone? How might the descriptive ineffability of interjections, free indirect speech etc. be accommodated within a theory of communication? What of those working on the aesthetics of artworks, music and literature? What can evolution tell us about ineffability? The papers in this volume address these fascinating questions head-on. They represent a range of different attempts to answer them and, in so doing, allow us to pose exciting new questions. The aim, to bring the ineffable firmly within the grasp of theoretical pragmatics.

ISBN 978 90 272 0926 9



9 789027 209269

John Benjamins Publishing Company