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Applications of conceptual blending: Headlines and their implicatures¹

One of the claims of cognitive linguistics is that it is able to remove the semantic-pragmatic divide (cf. Evans & Green 2006), and yet the research conducted in this field is at times criticized for focusing on word/phrase meaning (semantics) rather than intended illocutionary force (pragmatics) (cf. Glebkin 2013; Pérez Hernández 2002; Ritchie 2004). A case in point is the criticism of conceptual blending for its apparent failure to acknowledge that the multiplicity of implied meanings emerging from the blend differ depending on variables such as discourse context, speaker/hearer culture, frames, intonation, and gesture. As a result, a growing collection of research has included additions to and modifications of the original Fauconnier and Turner diagram (cf. Coulson 2001; Ruiz de Mendoza & Peña Cervel 2002; Omazić 2005; Stadlermann 2012).

This study analyses several of the proposed modifications of the conceptual blending model and applies them to the interpretation of headlines. Headlines provide an ideal source for analysis of implicature as the article itself provides context and commentary. This paper will discuss the effectiveness of allowing for frames, grounding, or additional input spaces in explaining the headline's pragmatic effect. It is hoped that this paper will contribute to the development of cognitive pragmatics as a field of study in its own right.

Key words: conceptual blending; headline; implicature, frame, cognitive pragmatics.

¹ This paper was presented at the Cognitive Linguistics in the Year 2013 conference, in Warsaw, Poland, but never submitted for publication.



1. Introduction

This paper analyses ways in which the conceptual blending model can be modified to account for pragmatic meaning. This is in response to criticism conceptual blending has received for its apparent failure to acknowledge the diverse factors that are involved in correctly identifying the implicature or illocutionary intent of the emergent blend (cf. Glebkin 2013; Pérez Hernández 2002; Ritchie 2004). Within these critiques, attention has been drawn to the influence of elements such as discourse context, speaker/hearer culture, frames, intonation, and gesture. For this reason, a growing collection of research has included additions to and modifications of the original Fauconnier and Turner diagram (cf. Coulson & Todd 2005; Ruiz de Mendoza Ibáñez & Peña Cervel 2002; Pérez Hernández 2002; Omazić 2005).

In order to compare the effectiveness of these diagrams in explaining the pragmatic meaning emerging from the blend, this study applies various adaptations to the blending model to the interpretation of select headlines. Headlines, as a discourse type, were selected for their heavy reliance on cultural context for full understanding. Moreover, since the article itself provides context and commentary, thereby confirming or disproving initial observations, headlines can be viewed as ideal for such research. This paper begins with a brief review of the way in which the fields of pragmatics and Cognitive Linguistics approach meaning (section 2), followed by a presentation of the theory of conceptual blending and some of its modifications (section 3). The analysis looks at three different headlines chosen for their use of figurative language and modification of set phrases (section 4). It demonstrates the effectiveness of allowing for frames, grounding, or additional input spaces in explaining the headline's pragmatic effect. The discussion summarizes observations made during the analysis (section 5) and the conclusion makes suggestions for future research (section 6). It is hoped that this paper will contribute to a growing need for a "Cognitive Pragmatics" sub-field.

2. Theoretical foundations

The analysis presented in this paper centres on the application of conceptual blending to theories of pragmatics, specifically illocutionary force and implicature. This section briefly explains how the notions of illocutionary force and implicature influence the understanding of meaning within pragmatics and compares it with the way meaning is understood within Cognitive Linguistics.



2.1. Pragmatics and word meaning

Pragmatics deals with language in use and addresses the discrepancy between what is said, e.g., *The window is open*, and what is meant, e.g., *Please close the window*. Two ways of addressing this discrepancy are speech acts and implicature. The concept of speech acts can be traced back to Austin's *How to Do Things With Words* (1962), in which he "advances the fundamental claim that speech is a form of action rather than a device for describing the world" (Collavin 2011: 373). Searle develops Austin's work, focusing on the illocutionary force of a speech act, that is, a linguistic expression's ability to change the state of the world and the contextual elements, or felicity conditions, necessary for that to occur. In the case of journalism, this means adjusting the reader's vantage point so that he/she acquires the journalist's perspective. One problem that Austin and Searle ran up against is that there is limited, if any, one-to-one correlation between the words used in a given utterance and its intended speech act and/or illocutionary force.

Grice (1975) introduced the notion of implicature to address this apparent discrepancy between word meaning and speaker meaning. He suggests that we understand what is meant as differing from what is said when what is said violates certain conversational maxims. For example, stating that a window is open when it is visible to both speaker and hearer flouts the maxim of quantity. As a result, contextual clues help the hearer understand the intended meaning (i.e. implicature): *please close the window before leaving, perhaps the cat escaped through the window*, etc. One problem with implicature as proposed by Grice is that it suggests that we first search for literal meaning before attempting to understand a figurative meaning. However, recent studies have drawn that presupposition into question (Gibbs 2002). Nevertheless, the cognitive processes that enable us to understand meaning that is not "in the words", at times instantaneously, are still somewhat of an enigma to researchers. One of the goals of Cognitive Linguistics, specifically the theory conceptual blending, discussed in the following section, is to offer new perspectives on how illocutionary force and implicature are communicated.

2.2. Cognitive linguistics and meaning

Langacker (2008: 40) emphasizes that a cognitive linguistic approach to meaning bridges the gap between semantics and pragmatics. Thus, semantics and pragmatics become points on a continuum rather than separate modules within the field of linguistics. In his contribution to *The Handbook of Pragmatics*, Fauconnier (2006: 659) offers the following explanation:



Within cognitive frameworks for studying meaning construction, many standard issues of pragmatics remain as important as ever – we seek to account for scalar phenomena, speech acts and performatives, presupposition, referential opacity, so-called figurative speech, metonymic pragmatic functions, and implicature – but old problems are framed in novel ways.

In other words, theories developed by cognitive linguists should shed new light on how we understand topics central to pragmatics. In particular, Fauconnier highlights the theory of conceptual blending, which he developed with Mark Turner, as a tool for this endeavour (Fauconnier & Turner 2002).

Conceptual blending, also known as conceptual integration, analyses meaning creation and comprehension. It is based on the notion of mental spaces: “small conceptual packets constructed as we think and talk for purposes of local understanding and action ... partial assemblies containing elements ... structured by frames and cognitive models” (Fauconnier 2006: 662). Elements from these different mental spaces are said to blend via vital connections, creating new emergent concepts and expressions. Frequently schematized as in

Figure 1, conceptual blending is claimed to be responsible for the complexity and creativity of our lexicon, as well as our ability to do math, tell time, and perform many other culturally and socially necessary functions. A prototypical blend includes a minimum of four spaces: a generic space that provides common structure, at least two input spaces and the blend.

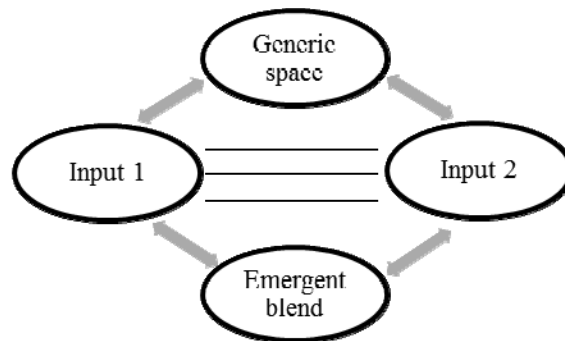


Figure 1: Conceptual blending diagram (cf. Fauconnier & Turner 2002)

One example of conceptual blending common in the English language is the XYZ blend in which x is the y of z :



- (1) *Paul is the father of Sally.*
- (2) *Money is the root of all evil.*
- (3) *The wages of sin is death.*

Expressions that complete this structure can be both literal and figurative; what is important is that both conceptualizers (speaker and hearer) are able to recognize the same input domains for *y*; e.g. the kinship domain for (1), plants for (2), and labour for (3).²

What is unique about the blend is that it has emergent properties; in other words, there are elements in the blend that cannot be found in the input spaces. According to Fauconnier (2006), among others, these properties include pragmatic meaning.

Despite the fact that most cognitive linguists would agree that something like conceptual blending occurs, the specifics are still open to debate. Regarding the Fauconnier-Turner model, several concerns – or criticisms – have been raised. Four that are relevant to this study are presented below.

- It makes current knowledge of cognitive process more accessible – but is unable to explain how new conceptual knowledge emerges (Glebkin 2013: 2407)
- The absence of a ‘cultural-historical component’ often inhibits understanding of the ‘true causes’ and ‘real conceptual structure’ of the items under investigation (ibid. 2408).
- The theory complicates simple processes of reasoning that would be better served by recognizing a metonymical link (Ritchie 2004).
- It is unclear how the receiver is able to understand “the intended meaning of that utterance”, that is the implicatures (Pérez Hernández 2002: 182ff).

As an example of the gap between input spaces, the emergent blend, and the intended implicature and/or illocutionary force, Coulson & Todd (2000) discuss the bumper sticker *My karma ran over my dogma*. The blend is both conceptual and formal. The formal blend occurs at the level of the pun: *Car/Karma, Dog/Dogma*. Conceptually, the result of the car-dog input space – the death of the dog – is mapped onto the karma-dogma space, suggesting the death of the bumper-sticker writer/owner’s dogma. However, as the authors highlight, the emotions of a car-ran-over-dog scenario, which would include sadness and guilt, do not transfer to

² The second two examples and the analysis come from Turner (1991: 199), whereas (1) can be found in Fauconnier (2006: 660–661). All three are examples are discussed by both authors in several of their publications.



the new lexical expression. Somehow, we know that the driver who has chosen this bumper sticker is not sad about the loss of his dogma or asking us to mourn with him, but it is unclear what cognitive processes enable us to run the blend so as to understand this implicature.

Coulson & Todd (2000: 180) add a philosophical frame in which replacing dogma with karma is viewed positively, thus overriding the traditional interpretation of the car-dog scenario. In addition, they provide context by placing the bumper sticker on the car of a college student and grounding it in a trend among US college students to choose “spirituality” over traditional religion. They claim that this results in the implied evaluation: The driver is now free from the binds of dogma and this is a positive thing. Hence, the implicated meaning could be *Accepting karma has freed me of dogma*. It could also be read as a speech act: *Reject dogma, embrace karma*, with the accompanying illocutionary force as dependent on the social position of the car(owner) and the reader of the bumper sticker.

Understanding implicature is important both for cognitive linguistics and discourse analysis. According to Cap (2008), implicature can be seen as a form of legitimation. Moreover, it is a more effective tool of persuasion than blunt statements because it invites the readers/listeners to be co-creators of the implicature, making it harder to reject. For example, understanding the bumper sticker discussed above requires, at least temporarily, accepting the assumption behind its message that karma is freeing, and dogma is restricting.

Nevertheless, the question remains whether or not there are ways to formally incorporate implied implicature into a blending diagram. Furthermore, we are left with uncertainty regarding the intended illocutionary force of the sticker: the driver may be using such a violent representation to shock/offend traditionalists who stand by their dogma and/or may be encouraging or advising other drivers to run over their dogma, as well. At the same time, the college student could later come to regret his/her rejection of traditional religion, in which case the bumper sticker would acquire a meaning of nostalgia or regret. Neither the implicature nor the illocutionary force are accounted for in traditional models of the blending diagram.

3. Developing the conceptual blending theory

These issues have been recognized and addressed by various scholars within the field of cognitive linguistics and have resulted in a plethora of possible solutions. It is possible to divide these modifications of the basic blending diagram into two



categories: those within the blend and those exterior to the blend. Table 1 lists examples of each with relevant publications.

Table 1: Modifications to the blend

Within the blend	Sample publications	External to the blend	Sample publications
Additional input spaces	Feyaerts & Brône 2005, Ruiz de Mendoza & Peña Cervel 2002	Frames / Frame Shifting	Coulson 2001
Space Structuring model	Oakley 2002	Scalar implicatures	Coulson 2001
Highlighting metonymic relations within input spaces	Pérez Hernández 2002; Feyaerts & Brône 2005	Semiotic Space	Brandt & Brandt 2005
Recognition of phraseology	Omazić 2005	Grounding box	Coulson & Todd 2005

3.1. *Within the blend*

As demonstrated in Table 1, scholars have proposed several ways of working within the blend to explain the implicatures and intended illocutionary force of the emergent blend. Perhaps the most basic is to simply add more input spaces. Fauconnier & Turner's (2002: 279–295) do this in their analysis of the stork bringing the new born baby or the grim reaper signalling death. Coulson (2001) suggests that a space structuring model provides guidance for the types of spaces that are built. While this may explain a possible path or mechanism for new and creative uses of language and imagery, it does little to address pragmatic issues. One solution, discussed by Pérez Hernández (2002) and Feyaerts & Brône (2005) is to recognize and emphasize the metonymic mappings that occur within input spaces. For example, Pérez Hernández (2002: 182) discusses the phrase in (4).

- (4) *If Churchill had been Prime Minister in 1938 instead of Neville Chamberlain, Hitler would have been deposed and World War II averted.*



She criticises Turner & Fauconnier (1998) analysis of the counterfactual as incomplete in understanding the statement's argumentative potential (i.e., *illocutionary force*): "What needs to be explained, therefore, is how the hearer is capable of grasping the intended meaning of that utterance" (2002: 185). Her solution is to suggest that *Churchill* and *Chamberlain* "are just the source domains of two metonymies which stand for two types of politicians: those who favour open opposition and those who prefer policies of appeasement respectively" (2002: 186). Only by understanding these politicians as representatives of a type of leader is it possible to draw implicatures regarding which type of leader is preferred. When that has been accomplished, it is possible to blend the statement with other political situations to argue for taking a strong position against aggressor nations.

Omazić (2005) also applies the strategy of highlighting metonymic relations, but she suggests adding a phraseological input space. Specifically, when the text dictates, she analyses blends as phraseological components and suggests that the implicatures in the emergent blend can be derived from the implicature present in the original phrase. For example, she looks at the headline (5) and the sentence in (6):

(5) *Bagdad is Bush's blue dress.*

(6) *This article describes the real **Blue Dress**' in Bush's closet.*

She suggests that at minimum three input spaces are involved: *Bagdad* as a metonymic link to the Iraqi war and the inability to find the missiles once Bagdad was taken; the *blue dress* as a metonymic link to Monika Lewinski's accusations that Clinton had taken advantage of her sexually; the idiom *a skeleton in one's closet*. Only by understanding (5) as a creative recasting of the idiom is it possible to understand the full implication of the utterance.

3.2. External to the blend

Other scholars add boxes and/or frames outside the blend to help regulate either the original blend or its unpacking. Fauconnier & Turner (2002: 225ff) applies this strategy to their analysis of (7):

(7) *In France, Watergate would not have hurt Nixon.*

However, Brandt & Brandt (2005) criticise their usage of content external to the blend as ad hoc because it neither explains the intended implicature nor tells us who we should admire: Are the Americans too uptight or do the French lack integrity?



In order to answer such questions, Brandt & Brandt (2005) suggest a new structure for the blend and add a semiotic space to aid in interpreting the elements. This is demonstrated with the metaphorical expression *this surgeon is a butcher*, which has frequently been discussed in the literature on metaphor (e.g. Glucksberg & Keysar 1990; Grady, Todd & Coulson 1999). Grady, Todd & Coulson (1999) use *this surgeon is a butcher* as an example of how conceptual blending is able to explain clashes in meaning better than the conceptual metaphor theory. Brandt & Brandt (2005) argue that their analysis is incomplete. To fix this situation, they propose several changes accompanied by step by step instructions. First, they remove the generic space as superfluous. Second, instead of a frame or context box, they add a semiotic space. The semiotic space “is the space in which utterances are uttered and come to mean whatever it is they are supposed to mean. It is a space of expressive signification as such, and is the base of all further space building [...]” (2005: 224). This space is depicted as three concentric circles, with the most central containing the expressive act, the next the context or situation, and the outer circle relevant phenomenal knowledge of the world (e.g. the existence of butchers).³ Third, they label the input spaces according to their role: a reference space (which could be seen as corresponding to the target in conceptual metaphor theory [c.f. Lakoff & Johnson 1980]) and a presentation space (corresponding to the source). These two spaces blend into a virtual space in which the surgeon is viewed as a butcher. At this point, the results are similar to what Grady, Todd & Coulson (1999) suggest. Forth, to better understand why calling a surgeon as a butcher is a criticism, relevant framing is constructed from the context provided in the semiotic space. This contextual input results in an elaboration loop, further clarifying the meaning. Fifth, an additional relevance space is added which provides the image-schema, here a force dynamic schema of an agent harming a patient, which also adds ethical evaluation. Finally, this space is blended with the virtual space to create a meaning space: it was unethical for the surgeon to leave such a large scar on a patient. They claim argue that his emergent blend now contains illocutional relevance and it is possible for inferences to be projected back into the semiotic space where the conversation is taking place. The final diagram is complex; however, the authors argue that each step is necessary for correct interpretation of the metaphorical utterance.

Coulson & Todd (2005) analyse Brandt & Brandt’s diagram and attempt to simplify it by reducing the input spaces to the reference space and presentation space

³ Brandt & Brandt (2005: 224) note the similarity between their concept and Langacker’s (1999: 77) notion of ground: “the actual speech event, its participants, and its immediate circumstances.”



and adding a grounding box to compensate for the remaining spaces (the semiotic space, the additional relevance space and the image schema). This grounding box corresponds to Langacker's current discourse space and comprises the participants, the forum and the circumstances. It is a "post hoc analytic device for specifying three basic elements of all discourse" (2005: 1518). Coulson & Todd argue that these three elements are sufficient to explain illocutional relevance and inferences. They take as their example an utterance similar to that presented in 0: *In France, the Lewinsky affair wouldn't have hurt Clinton* (2005: 1514ff) and explore its alternative implications in two contexts.

The first places the statement within an editorial column in the conservative US newspaper *The Washington Post* and supposes that the topic is French Politics after the French government blocked the UN security council vote to go to war with Iraq. Coulson & Todd place American politics, Clinton's affair with Lewinsky, and the impeachment trial in the presentation space, whereas French politics and possible extramarital affairs of French politicians comprise the reference space. The blend suggests that the "French Clinton" is not hurt politically or legally by the trial. When this blend is interpreted through the information in the grounding box, the implicature is that "The French lack moral clarity".

The second hypothetical context is an editorial in the progressive magazine *The Nation* discussing global terrorism and French politics. Here, the hypothetical extramarital affairs are in the presentations space and the information regarding the Clinton scandal is placed in the reference space. The blend contains the same information as in the previous context; however, when that information is interpreted in the grounding box, the implicature differs. In this case "Clinton is undistracted and focuses his attention on fighting global terrorism."

3.3. Discussion

From the analyses presented in this section, it is clear that elements outside the blend, such as the context of the speech act and a certain amount of cultural knowledge play an important role in understanding the intended implicatures and illocutionary force. The question remains, how best to diagram this information. In the section that follows these theories are applied to three headlines and discuss how apt they are at highlighting their potential implicatures and illocutionary force.



4. Analysis

One of the problems with each of these theories is that, for the most part, they are analysing stock phrases in linguistic literature. While the benefit of such repetition is that we are able to take the analysis deeper and see many possibilities for the same lexical content, it has a downside in that most discussion is commenting on “linguists’ language in use” rather than simply “language in use”. As cognitive linguistics is based on language-in-use, I believe it is important to search for new examples whenever possible. The headlines chosen here for analysis come from a larger corpus-based project which studies the debate over teaching evolution in the US (see Barczewska 2017). They were chosen for their relevance to the issues raised in the literature discussed in Section 3: 0 includes an XYZ blend, (9) relies heavily on constructing the correct metonymic link and both (9) and (10) are phraseological. Moreover, all three are vague in the sense that it is difficult to identify the intended implicature/speech act/illocutionary force without reading the article.

(8) *Intelligent design: Creationism’s Trojan horse* (Anonymous 2005)

(9) *In science we trust* (Bloom 2009)

(10) *A black hole ate my homework* (Di Filippo 2006)

Although I realise that analysis of three headlines cannot be viewed as conclusive, I do think it will shed light on some of the cognitive processes necessary for interpreting novel statements, such as headlines and to what extent the theory of conceptual blending and its adaptation can(not) account for them. For each headline, we will conduct several analyses using some of the methods described in the previous section.

4.1. *Intelligent design: Creationism’s Trojan horse*

This headline is set up as an analogy and can be analysed as an XYZ metaphor (cf. Turner 1991). Shared knowledge tells us that the missing element in the expression is the Greek army; hence we could map the headline according to Figure 2. Other elements of the source domain include the Trojan war and the wall around Troy, which block the Greek army from entering the city. Elements from the source domain that could be mapped onto the target domain include the struggle to teach alternatives to evolution and the blockade against teaching creationism after the Supreme Court ruling in *Edwards v. Aguillard* in 1987. The ruling declared scientific creationism to be a form of religious teaching, hence, inappropriate for the US public school classroom. As a result, those who found the seven-day creation model to be a sounder explanation of the origin of life than the theory of evolution had to re-



direct their attention elsewhere.

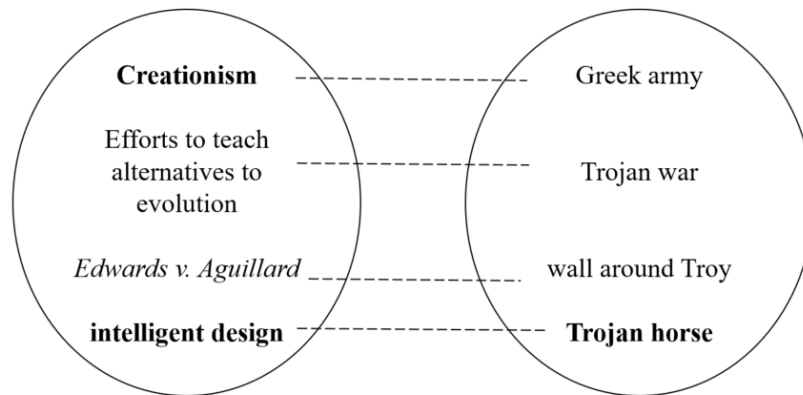


Figure 2: “Intelligent design: Creationism’s Trojan horse” – XYZ mapping

According to this criticism, the creationists did not turn their focus to other venues; instead, they reinvented themselves. The blended space here would imply that intelligent design (ID) is a clever disguise for getting creationism into the public schools where it can launch a surprise attack and defeat Darwinism, caught unaware.⁴ One problem with this understanding of ID is that the movement predates *Edwards v. Aguillard* in 1987, another is that creationists and ID proponents are critical of each other’s theories and methods. Moreover, it raises the question, who is mapped onto the role of the Trojans – the pupils, teachers, evolutionists, or someone else? Corpus analysis suggests that all three can and have been mapped onto the role of the victim in this and similar construals in US press reporting (cf. Barczewska 2017)

These issues aside, there are still a few problems with applying a simple XYZ blend in this case. Similar to what Brandt & Brandt (2005) notice in analyses of “my surgeon is a butcher”, discussed in Section 3, there is a disanalogy between what the Trojan horse meant for the Greek army and what it means for defenders of evolution. As discussed in Barczewska (2017: 284–285), dictionary examples of *Trojan horse* in modern usage suggest that the metaphor assumes the Trojans’ perspective, rather than the Greeks’. In other words, to understand that this is a critique of creationism we would have to add a phraseological input space. Moreover,

⁴ This ignores the position of ID proponents (West 2002) and criticisms of the intelligent design movement by both young and old earth creationists (e.g. Lisle & Chaffey 2012).



this metaphor presupposes recognition at the conceptual level of our ability to understand and discuss arguments in terms of war. Perhaps a better way to map this headline would be the blend in Figure 3, in which the grey oval represents conceptualizers' presupposed familiarity with metaphorically discussing arguments in terms of war. Arguably, I could have presented it as a cultural frame or element of shared knowledge; however, I have chosen to depict the conceptual metaphor in this way to highlight that it is likely unconscious (cf. Lakoff & Johnson 1980) and buttresses each of the three input spaces.

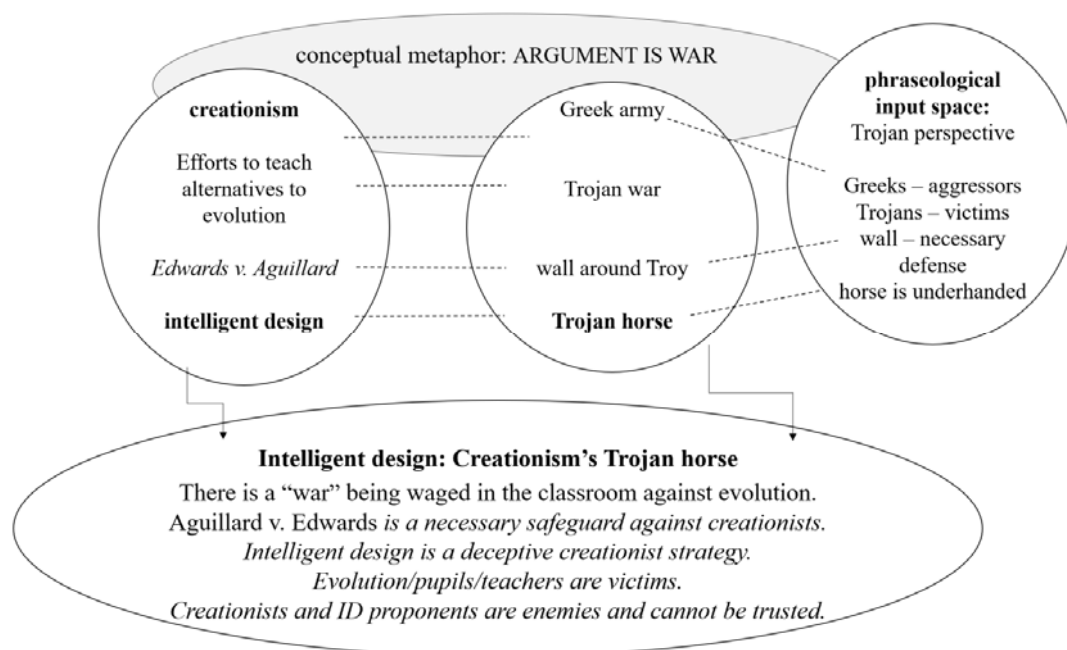


Figure 3: “Intelligent design: Creationism’s Trojan horse” – XYZ mapping and phraseological input space⁵

Despite the implicit fear that creationists could overwhelm the teaching of evolution as a fact, the actual victory of creationism over evolutionism is not transferred to the emergent blend. One might ask if this is a case of exaggeration or simply the incomplete adaptation of an historical image. Indeed, in the book of the same name

⁵ In figure 3, as well as in the diagrams that follow, italics in the emergent blend signify possible implicatures and the illocutionary force they suggest.



by Forrest & Gross ([2004] 2007), the aim is not to show the impending victory of the creationists, but to argue that the intelligent design movement is a creationist tactic.⁶ Proponents of intelligent design have labelled this move the creationism gambit, as it uses the label “creationism” to silence any criticism of the theory of evolution (Nelson 2009). This use of metaphor also provides an example of proximation (cf. Cap 2008) – in which the danger is brought closer to increase the level of fear and felt need to react.

4.2. *In science we trust*

“In science we trust” appeared in *Natural History* (Bloom 2009). We will begin by looking at the headline according to the guidelines provided in Coulson & Todd (2005) and graphically illustrated in Figure 4. The notion of a person trusting in an authority goes in the reference space, while the presentation space comprises the participants specified in the headline: *we* and *science*. The grounding box would contain the journalist and his/her readership as the participants; *Natural History* magazine as the forum; analysing why people do (not) believe in evolution as the circumstance. Within this blend, *we* could refer to the magazine’s editorial staff and/or its readership; alternatively, it could be understood to encompass American or international society at large. The term *science* likely serves as a metonymic referent to scientists and their research rather than the more practical applications of medicine and technology.

The implicatures include the notions that *science* is the journalist/reader’s authority and that the field, as well as its practitioners, are worthy of the reader’s trust. As a result, the headline argues that we can trust science. While an alternative reading of the headline is possible, in which this statement is understood negatively, this is ruled out by the nature of the forum.

However, the author seems to be doing more than simply arguing for greater trust in science. I believe it is possible to say that he is arguing against an alternative authority. This implicature is not immediately evident in Figure 4; however, it becomes clear when applying Omazić’s (2005) suggestion that phraseological

⁶ Chronologically, this is problematic as the ID movement can be traced back to before creationism was outlawed. Furthermore, it ignores the fact that ID proponents do not self-identify as creationists (West 2002) and creationists – both young and old earthers – look at the ID movement with criticism and skepticism for not including the Biblical record in their analysis (e.g. Lisle & Chaffey 2012).



components be considered when unpacking a blend. “In science we trust” is a modification of “In God we trust,” resulting in the blend sketched in Figure 5.

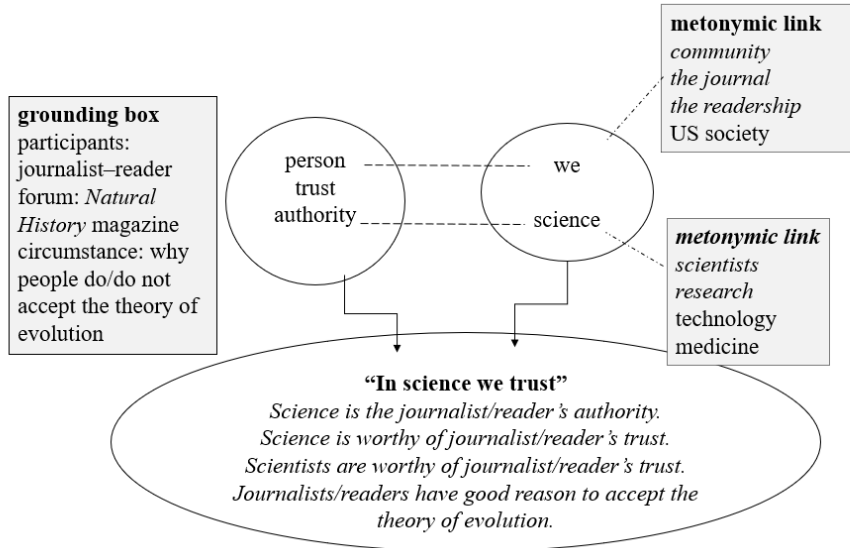


Figure 4: “In science we trust” – grounding box

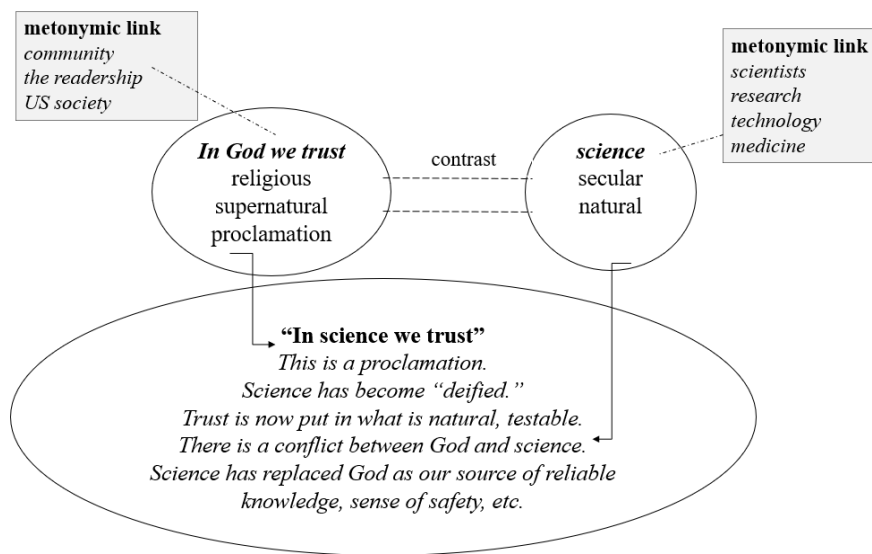


Figure 5: “In science we trust” – phraseological input space



Recognizing the phraseological source of the expression clarifies the implicature and intended illocutionary force. Nevertheless, it is possible to gain a deeper understanding of this headline as a commentary on American society and its socio-cultural history by adding a cultural reference space focusing on the notion of civil religion, a “public religious dimension is expressed in a set of beliefs, symbols, and rituals” (Bellah 1967). According to Bellah, American civil religion is based on a general idea of God who both called and blessed America, as well as holds her accountable:

In American political theory, sovereignty rests, of course, with the people, but implicitly, and often explicitly, the ultimate sovereignty has been attributed to God. This is the meaning of the motto, “In God we trust,” as well as the inclusion of the phrase “under God” in the pledge to the flag. ... There is a higher criterion in terms of which this will can be judged; it is possible that the people may be wrong. (Bellah 1967)

If Bellah’s understanding of “In God we trust” is applied to the blend as part of a cultural reference space, the implicatures shift their focus, as demonstrated in Figure 6. In Brandt & Brandt’s diagram (2005) this would be included in the semiotic space; however, in their corresponding grounding box, Coulson & Todd (2005) do not explicitly include such cultural background knowledge.

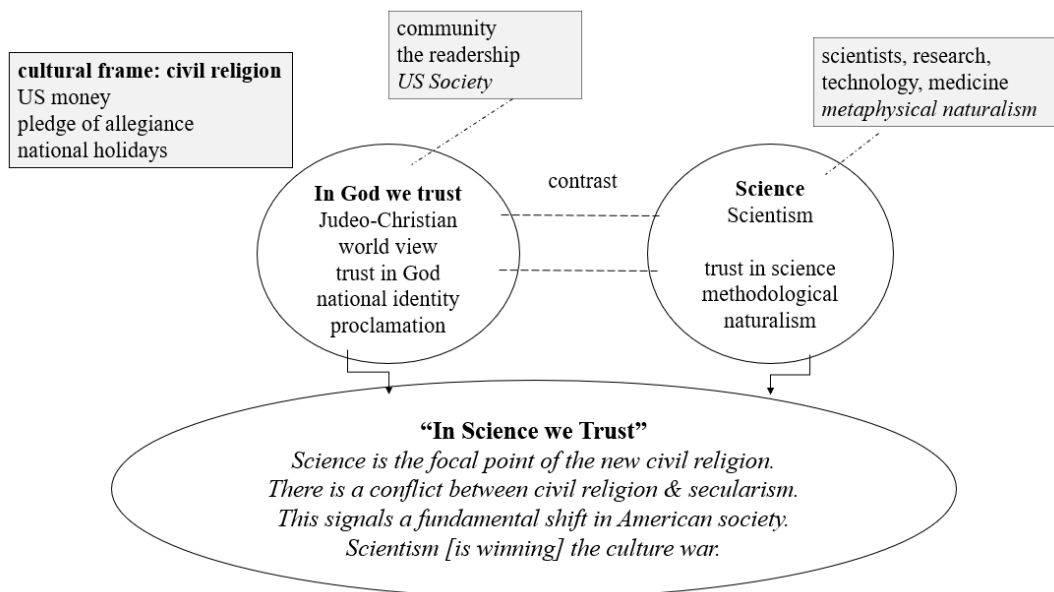


Figure 6: “In science we trust” – phraseological input space and cultural frame



By adding the concept of civil religion and treating science as a metonymic referent to scientism, the pragmatic implicatures of the emergent blend shift to suggest not only a conflict between God and science but also, and more dramatically, a possible shifting in the very foundation of American culture and society. Taking into consideration the source of the article, *Natural History Magazine*, it is likely that the author is arguing for a change in civil religion which would place national trust in science rather than God. This could then be extended to include what behaviour is considered moral and/or beneficial to society.

4.3. *A black hole ate my homework*

The final headline that we will look at is “A black hole ate my homework” (Di Filippo 2006). This comes from a short story in “Plumage from Pegasus”, a satirical column of the magazine *Science Fiction & Fantasy*. It can be found re-published elsewhere on-line, signalling that the message of the story clicked with a particular readership. A very simple unpacking of the blend might include a comparison between the ways in which animals eat food and the gravitational pull of black holes, as illustrated in Figure 7.

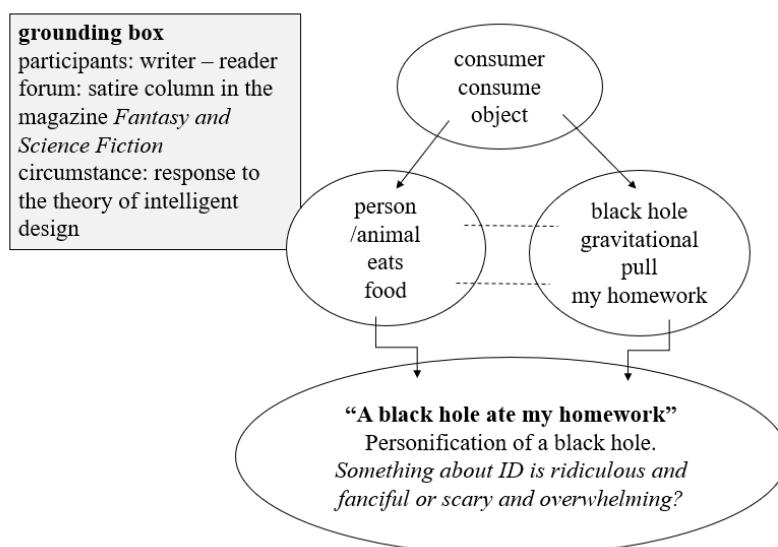


Figure 7: “A black hole ate my homework” – grounding box

While this understanding of the headline is sufficient for identifying its tone, it fails to recreate the full cultural allusions and implications likely intended. To grasp



these additional elements available to the reader, one must be aware of the clichéd excuse American children give for not bringing their homework to school: “My dog ate it.” This information can be added to the blend as a phraseological component and as a cultural element. Moreover, the numerous variations that can be found in cartoons and children’s stories could be placed on a scale from less to more feasible, as illustrated in Figure 8. This scale also carries certain implicatures regarding how intent the child is on hiding the fact that he/she did not complete the assignment, how gullible the teacher is, etc.

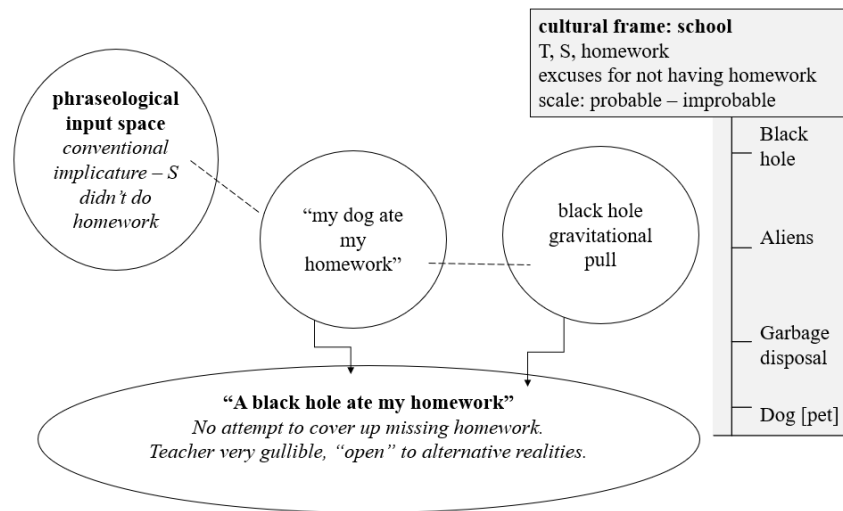


Figure 8: “A black hole ate my homework” – phraseological input space and cultural frame with scalar reference

Only when all four external elements are present in the blend is it possible to unpack the meaning of the headline to its fullest and understand the expression in its entirety. This is demonstrated in Figure 9.

Once all the elements are included, it is possible to understand the implicatures the author could have in mind by presenting such an outlandish explanation for not having homework in the context of a debate on intelligent design. Specifically, as the satirical story conveys, the author believes that allowing intelligent design in the science curriculum opens the door for any conceivable explanation for anything, including black holes eating homework.⁷ However, the results at this stage

⁷ Of course, this is a strawman attack on the intelligent design theory, which actually applies a certain amount of rigor to what it identifies as designed.



begin to resemble Fauconnier and Tuner's analysis, which was criticised in the beginning for the number of external contextual and grounding boxes.

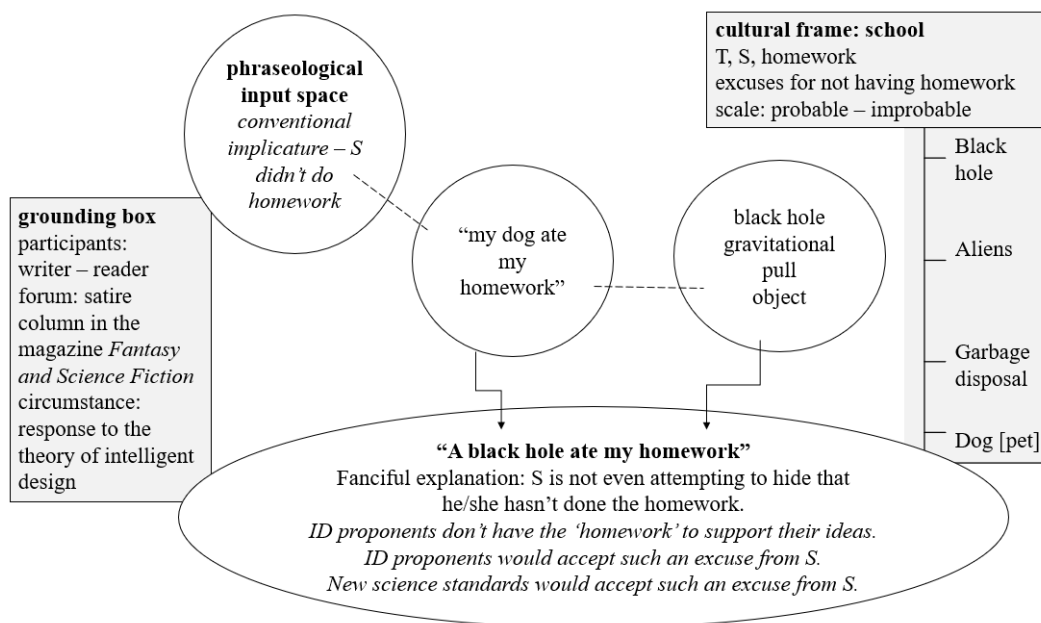


Figure 9: “A black hole ate my homework” – grounding box, phraseological input space and cultural frame with scalar reference

The only model discussed in Section 3 that provides a systematic way of dealing with large amounts of contextual information is that proposed by Brandt & Brandt (2005). One possibility would be the semiotic space, as part of the phenomenal knowledge of the world. However, to my mind, that would hide the important role that both of these particular types of background knowledge play in comprehending this headline. The other possibility would be to include one or both in the relevance space, but that would suggest that reader must re-analyse the headline according to the scalar model or phraseological model. Gibbs (2002) research suggests that figurative meaning is often processed before literal meaning, whereas Coulson (2001) suggests that we do often reanalyse material when new information prompts for a shift in frames. Thus, whether such a process similar to that proposed by Brandt & Brandt (2005) occurs would require a study of its own, and, while interesting, is outside the scope of this paper.



5. Discussion

The analyses of the example headlines reveal the complex processes behind the seemingly instantaneous comprehension that the theory of conceptual blending presupposes. Several observations made by Turner (1991) regarding the interpretation of XYZ metaphors can be said to apply to all three of the headlines discussed here:

- We bring to bear a tremendous range of detailed knowledge [...] Vast ranges of conceptual knowledge not in the least explicit in the expression are indispensable for understanding the metaphor.
- Understanding a metaphor is often actually understanding whole systems of metaphoric mappings, involving many components in the source and the target.
- There is no natural terminus to understanding a metaphor. It is nonsense to say that the reader should stop when he has determined “just what the linguistic expression says,” because the linguistic expression itself does not mean.
- The power of language lies not in words, but in the mind.

They also exemplify the difficulty of structuring the way in which conceptual blends are created and/or unpacked; in fact, none of the blends clearly fit into one or another of the proposed diagrams examined in section 3. As a comprehensive theory of conceptual blending should be able to cope with any example of creative language use, the problems raised by these headlines can be helpful in further development of the theory.

For example, this study suggests some possible trends that are worth further analysis. First, this paper supports Omazić’s (2005) claim that the identification of implicatures of modified idiomatic phrases is facilitated by understanding the implicatures of the original. This was observed in all three phraseological expressions and suggests that greater emphasis should be put on including the conventional implicatures and illocutionary force of phrases or idioms that provide the structure for creative language use.

Moreover, alongside a phraseological approach, interesting observations were made in cases in which the element replaced in a phraseological expression was scalar. Two different influences could be seen here: implicatures of the emergent blend included an intensification of the original phrase in “A black hole ate my homework”, whereas the contrasting meaning is intensified in “In science we trust”, in which the replaced element was another word for the same type.



6. Conclusion

Although limited in its scope, the study does draw attention to several issues that come up when applying conceptual blending to the analysis of creative language, such as that found in headlines. It would be premature to create a theory based on this small analysis; nevertheless, it cannot be denied that the models we do create as linguists should be able to deal with such linguistic material. While “whole systems of metaphorical mappings” are often too complex to sketch and could comprise a book (Turner 1994), certain elements should be included in our analyses. In other words, are there certain points on the road to understanding an expression’s potential meaning that we should be aware of. This study highlights several questions should be asked by the analyst when attempting to unpack the blend to its fullest:

- What elements belong in the grounding box – what is the immediate and extended context?
- What metonymical referents need unpacking?
- Do we have an XYZ structure?
- Do we have a (modified) well-known phrase or idiom?
- What other frames are prompted by the headline?
- Is a scalar model implied?

Although the attempts at structuring the blend described here are useful, they have been shown to be incomplete on their own. One of the issues that remain is whether or not it is possible to structure blending diagrams in such a way as to account for all of these questions in a clear and systematic way without simply summarizing them under the general labels of cultural context or shared knowledge. It is this comprehensive mapping that continues to elude researchers in cognitive sciences and raises the question whether the human thought process, in its creativity, complexity, and on-line associations, can be reduced to fit such a diagram.

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**PRIMJENE KONCEPTUALNE INTEGRACIJE:
NASLOVI I NJIHOVE IMPLIKATURE**

Jedna od tvrdnji kognitivne lingvistike je da je moguće ukloniti granicu između semantike i pragmatike (usp. Evans & Green 2006). Usprkos tomu, istraživanja u tome polju na udaru su kritike zbog fokusa na značenje riječi/ fraze (semantika), a ne njihovu ilokucijsku snagu (pragmatika) (usp. Glebkin 2013; Pérez Hernández 2002; Ritchie 2004). Prikladan primjer su kritike konceptualne integracije koja navodno propušta uzeti u obzir da mnogobrojna značenja koja proizlaze iz integracijskoga prostora ovise o varijablama kao što su kontekst u kojem se diskurs odvija, kultura govornika/ slušatelja, okviri, intonacija i geste. što je porastom broja radova u tome polju rezultiralo dodatcima i prilagodbama Fauconnierova i Turnerova izvornoga dijagrama (usp. Coulson 2001; Ruiz de Mendoza & Peña Cervel 2002; Omazić 2005; Stadlemann 2012).

U ovome se radu analizira nekoliko predloženih modifikacija modela konceptualne integracije i primjenjuje ih se na tumačenje novinskih naslova. Naslovi se nameću kao idealan izvor za analizu implikatura budući da sami članak pruža kontekst i komentar. U radu se raspravlja o učinkovitosti uzimanja u obzir okvira, usidrenja ili dodatnih ulaznih prostora pri objašnjavanju pragmatičkoga učinka naslova. Nadamo se da će se ovim radom pridonijeti razvoju kognitivne pragmatike kao zasebnog polja istraživanja.

Ključne riječi: konceptualna integracija; naslov; implikatura; okvir; kognitivna pragmatika.