For the sake of argument

Mourning the unborn and reviving the dead through conceptual blending*

Seana Coulson and Esther Pascual
University of California, San Diego / Vrije Universiteit Amsterdam

Attested instances of persuasive discourse were examined from the perspective of conceptual blending theory to reveal that serious argumentative points are often made via the construction of unrealistic blended cognitive models. The unrealistic character of these models is often related to *compression*, a process by which complex relationships are reconstrued with simpler, more familiar concepts. These examples show how speakers' compressions enable them to strategically frame controversial issues, and to evoke particular sorts of affective responses consistent with their argumentative goals. Analysis points to various constraints on blending. Besides the constitutive and governing principles outlined by Fauconnier & Turner (2002), conceptual integration operations are greatly constrained by the frames and cultural models of a particular community, together with overall knowledge of the communicative event, the cognitive task, the issues dealt with, and the discursive goal. The paper focuses on pre-natal and post-mortem blends in "pro-life" rhetoric and judicial argumentation.

Keywords: argumentation, frames and cultural models, contextual constraints, conceptual blending, compression

1. Introduction

Coulson (2001) argues that contrary to the model of argumentation in which participants derive conclusions from premises stated and assumed (e.g. Pustejovsky, 1995), much persuasive discourse is characterized by participants' attempts to evoke culturally shared frames known as cultural models. Different models imply different social consequences for the participants, entail different courses of action, and affect the way that events are interpreted and experienced. Because multiple models may potentially be applied to the same objective situation, most

Annual Review of Cognitive Linguistics 4 (2006), **153–181**.
ISSN 1572-0268 / E-ISSN 1572–0276

moral arguments do not concern the content of these models, but rather which cultural models are the most relevant. Lakoff (2004) shows in detail how different politicians exploit basic meaning construction mechanisms such as framing to evoke the cultural models most consistent with their ideological goals.

In this paper we examine how framing in situated persuasive discourse interacts with another basic aspect of meaning construction, namely conceptual integration, commonly known as 'blending' (Fauconnier & Turner, 1994, 1998). Conceptual blending theory offers a general model of meaning construction in which a small set of partially compositional processes operate in analogy, metaphor, counterfactuals, and many other semantic and pragmatic phenomena (Coulson & Oakley, 2000, 2005; Fauconnier & Turner, 1998). In this theory, understanding meaning involves the construction of blended cognitive models that include some structure from multiple *input* models, as well as emergent structure that arises through the cognitive operations involved in the blend. Discussed at length in Fauconnier & Turner (2002), blending theory describes a set of principles for combining dynamic cognitive models in a network of *mental spaces* (Fauconnier, 1994), or partitions of speakers' referential representations.

1.1 Mental spaces and conceptual blending theory

Mental spaces contain partial representations of the entities and relationships in any given scenario as perceived, imagined, remembered, or otherwise understood by a conceptualizer. In language production and interpretation space elements represent each of the discourse entities, and simple frames represent the relationships that exist between them. Because the same scenario can be construed in multiple ways, mental spaces are frequently used to partition incoming information about elements in speakers' referential representations.

Conceptual blending theory is a development of mental space theory to account for cases in which the content of two or more mental spaces is combined to yield novel inferences. Selected aspects of the conceptual structure in two or more *input spaces* are combined in a *blended space*. For example, Fauconnier & Turner (2002, pp. 93–95) describe the role of conceptual blending in an illustration that accompanied a *New York Times* Science section article on the evolution of dinosaurs into birds. The illustration shows five different creatures, with a bipedal dinosaur at the top and a modern bird at the bottom. Three other creatures fall between them, a winged dinosaur next to the first one, followed by two creatures, each more bird-like (and less dinosaur-like) than the next. Interestingly, there is a dragonfly in front of each creature, so that the creature appears to be chasing it. The final creature in the series, the bird, has the dragonfly in its beak. The viewer is invited to imagine that the dinosaur at the top of the page gradually changes its appearance until its physiology enables it

to catch the dragonfly. The desired inference is that the demands of insect predation exerted selective pressure on dinosaurs that ultimately led to the evolution of birds.

Fauconnier & Turner (2002) analyze this construal of the changing dinosaur chasing the dragonfly as a conceptual blend of five different input spaces. Each input space represents a different time period in the evolution of dinosaurs. There are two elements in each of these spaces, a dragonfly and a dragonfly predator. In the most temporally removed space the dragonfly predator is a dinosaur. In the most recent space the dragonfly predator is a bird. That is, each space represents a different dragonfly and a different dragonfly predator — after all, they each exist during a different stage of evolution — though the elements are related via an analogous hunting relationship in each space.

In the blend, the temporal relationship between the events in each of the inputs undergoes *compression*, such that millions of years of evolution are construed as unfolding over a much smaller amount of time, perhaps on the order of an hour. The analogical relationship between each of the dragonflies is *compressed* or reconstrued as being one of identity, i.e. the same dragonfly is being chased, as is the relationship between each of the dragonfly predators. The disanalogies between the different dragonfly predators in the inputs are thus reconstrued as a rapidly changing individual. Moreover, the compressed structure in the blend allows us to view the sequence as an intentional transformation. That is, we imagine that the dinosaur changes himself into a bird in order to be able to catch the dragonfly.

Fauconnier & Turner (2000, 2002) argue that compression is a major force in human conceptualization that allows complex phenomena such as biological evolution to be understood with simpler, more familiar, *human scale* frames. The somewhat paradoxical claim of conceptual blending theory is that the unrealistic cognitive models developed by blending actually facilitate the comprehension of scientific phenomena such as evolution. We echo both of these claims in the analyses below, suggesting that persuasive discourse makes critical usage of compression to human scale, and further that it also involves the construction of unrealistic blends to make a more serious point. However, whereas Fauconnier & Turner (2000, 2002) emphasize the impact of compression on processing efficiency, we emphasize the way that speakers' compressions enable them to strategically frame controversial issues, and to evoke particular sorts of affective responses consistent with their argumentative goals.

1.2 Outline

The paper focuses on pre-natal and post-mortem blends in "pro-life" rhetoric and judicial argumentation. In particular, most attention is devoted to conceptual blending operations underlying the arguments made in (1)–(4):

(1) Since 1973, over 43 million babies, children, teens, and young adults are 'missing' in the United States … missing, because of abortion.

(2) When she turns 72 in that casket she doesn't get to come out of that casket.

(3) Would I kill my daughter so I could walk again?

(4) If by chance someone could […] bring her back to life […] bring her into this courtroom and ask her, "Danielle, please tell us, who did this to you". In turn, "I've already told you".

These examples come from an anti-abortion advertisement, a real-life jury deliberation in a murder trial, an interview with the paraplegic father of an adopted embryo, and a prosecutor's final speech in the trial for the death of a young girl. It will be argued that the impossible images inherent in these blends are rhetorically effective because they present the speakers' argument in an economic and convincing/straightforward manner. Moreover, we point to the way in which the spectacular meaning construction operations in these examples have their basis in more commonplace semantic phenomena.

2. Missing the unborn

Consider first example (1) above, repeated below for convenience:

(1) Since 1973, over 43 million babies, children, teens, and young adults are 'missing' in the United States … missing, because of abortion.

This example comes from the description of an advertisement titled "Milk Cartons" on the website for VirtueMedia. A non-profit organization, VirtueMedia specializes in the production of advertisements aimed to promote Christian values in American viewers. The ad in question focuses on the morality, or rather the immorality, of abortion. Although legal since a 1973 Supreme Court decision, abortion remains a divisive issue in American politics, and is frequently the topic of public debate. The ad, which can be viewed on-line at http://www.virtuemedia.org/milk_cartons.htm, begins by showing a line of people, each holding a milk carton. One woman places her milk carton on the ground. A close-up on the milk carton shows the picture of a missing child and suggests the presence of the text that typically accompanies such pictures (age, height, as well as the date and location the child was last seen). As the woman gets up, the camera pans back to show a large array of carefully spaced milk cartons, akin to the arrangement of gravestones in a cemetery. The voice over in the ad goes as follows:

> "If you were born after 1973, about 30% of your friends and relatives are missing. Since the Supreme Court approved legal abortions 30 years ago, nearly 1 of every 3 babies was aborted. That means 43 million US children, teens, and young adults are missing. While we know how all of them disappeared, we will never know what they had to offer. Life. See what we've been missing."

This advertisement is a powerful argument against the legality of abortion, in spite of the fact that there are a number of decidedly odd things about it. First, whereas abortion is most commonly defined as the termination of a pregnancy or the death of an embryo of fetus, the ad talks about missing children, teens, and young adults. Second, in spite of the fact that (illegal) abortions were quite common before 1973, in (1), 1973 marks the beginning of a rise in aborted fetuses. Further, the ad itself singles out viewers born since 1973 as having a third of their friends and relatives missing. Below we suggest that (1) serves as an argument against abortion via the exploitation of conceptual blending mechanisms in a way that promotes the framing of the object of abortion as a full-blown human agent.

Indeed, a key controversy in the case of abortion concerns the status of the fetus as a moral agent and the applicability of frames such as responsibility, punishment, victimhood, and murder (Coulson, 1992, 2001). The frame evoked by murder, for example, involves an agent, an intentional action, and a victim. Although Americans differ on the question of whether a fetus can fill the victim role in this frame, the eligibility of a (full-term) baby or a child is in the present frame not questioned. Consequently, a good deal of anti-abortion rhetoric consists of framing the object of abortion as a child. Danet (1980), for example, examined the different terms and phrases that trial lawyers used to refer to the object of abortion in the course of a manslaughter trial brought against an obstetrician who performed a late-term abortion. Danet observed that whereas the physician's lawyers used terms such as *fetus*, *embryo*, and *products of conception*, the prosecution used terms such as *baby*, *baby boy*, *child*, and *subject*.

In (1) the controversial framing of the object of abortion is achieved via the exploitation of the semantics of the word *missing*. Although its usage in (1) is somewhat marked, as suggested by the appearance of the word in scare quotes, it nonetheless exploits a similar integration network to that evoked by more conventional uses such as *missing chair*, *missing ingredient*, and *missing person*. For example, Fauconnier & Turner (2002) analyze "Put the vegetables in front of the missing chair," as a command to put the vegetables at a place at the table that habitually has a chair at it, but does not at present. They argue that expressions such as *missing chair* refer to a mental space with links to both an actual space and a counterfactual space. For example, in Table 1, **Chair1**, **Chair2**, and **Chair3** in the Actual Space all have counterparts in the Counterfactual Space as well as in the Blended Space. Element **Chair4**" in the Counterfactual Space, however, has no

counterpart in the Actual Space, and corresponds to the **Missing-Chair** element in the Blended Space.

Table 1. Missing Chair Blend

Actual Space	Blended Space	Counterfactual Space
Chair1	Chair1'	Chair1"
Chair2	Chair2'	Chair2"
Chair3	Chair3'	Chair3"
	Missing-Chair	Chair4"

Fauconnier & Turner (2002) argue that, as in other cases of conceptual blending, the missing chair inherits some of the properties from each of its inputs. "It inherits thing-hood from the counterfactual space in which there is a chair. It inherits its physical characteristics of being a gap from the 'actual' input, in which there is not a chair in the corresponding position" (p. 241). This **Missing-Chair** element in the Blended Space is thus a compression of the disanalogy between the Actual Space and the Counterfactual Space. Once compressed, speakers can refer to the **Missing-Chair**, attribute properties to it, and reason about it. While a nonentity cannot relevantly be said to have any properties whatsoever, a missing entity has properties in virtue of its link to the Counterfactual Space in this integration network.

Consequently, the meaning of the missing-X construction depends to a large extent on the structuring of the Counterfactual Space. In a case where a *missing chair* is missing because it was stolen, the Counterfactual Space is derived from a Past Space that represents the state of the dining room before the theft of the chair. In expressions such as *missing ingredient* the structure of the Counterfactual Space reflects assumptions about the normative state of affairs. The use of normative counterfactuals in this way is not unique to the missing-X construction, but can be seen in many cases of sentential negation (Lewandowska, 2005; Oakley, 2005). Indeed, the lexical semantics of words such as *dent* and *gap* have been argued to recruit normative construals as their ground (Langacker 1987, p. 195).

The mystery of the *missing babies, children, teens, and young adults* thus lies in the structuring of a counterfactual space in the conceptual integration network to represent these concepts. Although a non-entity's properties obviously cannot change over time, the properties of the compressed missing element can indeed be understood as changing over time because of its links to the counterfactual space. For the purpose of exposition, Figure 1 considers the case of a single baby, child, teen, and young adult, respectively. Further, although (1) does not directly mention the viewer, the ad itself uses the pronoun *you*, as well as referring to *your friends and relatives*. We have therefore included an element to represent the viewer in the network.

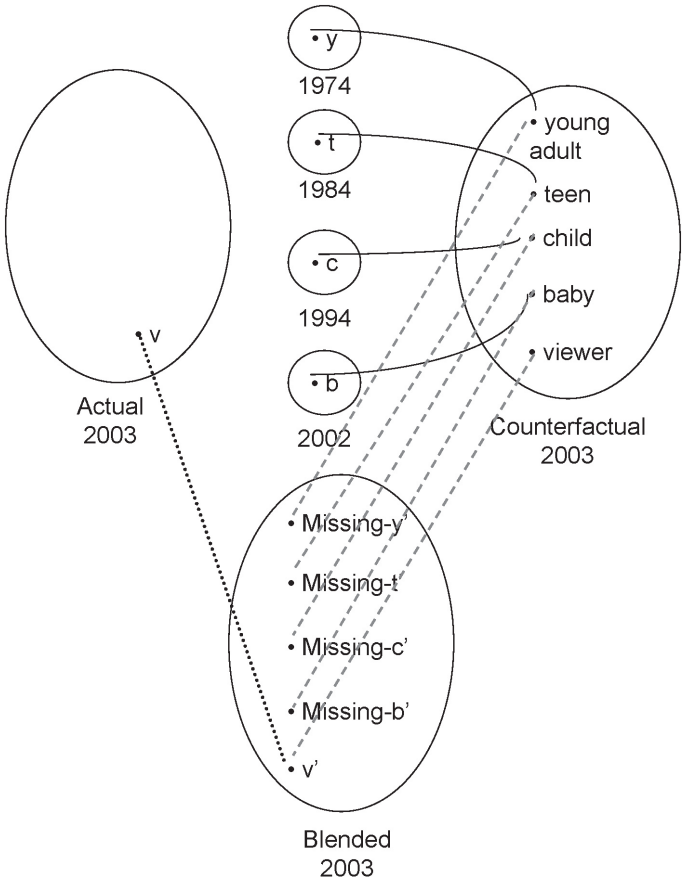

Figure 1. The Aborted as Missing

As in the dinosaur evolution example discussed in Section 1, the Counterfactual 2003 Space in Figure 1 is structured via its links to entities in multiple different past spaces. For example, the **Young Adult** element in Counterfactual 2003 Space is linked to the **Y** element in the 1974 Space where it was aborted.[1]

The **Teen** element in Counterfactual 2003 is linked to element **t** that was aborted in the 1984 Space. The **Child** element in Counterfactual 2003 is linked to element **C** that was aborted in the 1994 Space. The **Baby** element in Counterfactual 2003 is linked to the **B** element that was aborted in the 2002 Space. The Counterfactual 2003 Space is thus populated by individuals who, because they were not aborted, grew up normally. Hence, the rhetorical efficacy of (1) depends crucially on the structuring of the Counterfactual 2003 Space with elements whose developmental status is compatible with the view of personhood defended by supporters of abortion.

Further, the existence of persons that have been born and are now physiologically and biologically independent of their mother in the Counterfactual 2003 Space is necessary for the Missing Persons blend that supports the imagery of the milk cartons in the advertisement. As in the Missing Chair Blend outlined in Table 1, the Blended Space in Figure 1 involves a compression of the disanalogy between the Actual Space and the Counterfactual Space. The viewer is alone in the Actual Space, but is in the company of a number of people of various ages in the Counterfactual 2003 Space. Without the integration network for *missing*, there are only the Past Spaces in the middle of Figure 1 that represent various abortions; no one is born and thus there is (in the abortionist's view) nothing to mourn. Once projected into a Counterfactual Space, however, these elements can be construed as children, teens, and so forth, with friends and relatives who love them. The compressed missing elements in the Blended Space are linked to elements in the normative Counterfactual Space so that their loss is indeed something that can be felt, independently of one's views on abortion. In the Blended Space, **V**'s companions are missing persons whose image could (at least hypothetically) be depicted on a milk carton in the hopes that someone might locate them.[2]

Given that the projection of counterfactual children, teens, and young adults is so important for the argument in (1), we might question what aspects of meaning construction support this construal. In fact, it is supported by general mechanisms for reference. In general, it is often possible to refer to an element via its description in a future mental space. For example, we can refer to *incoming students* before they officially become students, or a man can refer to a woman as his *future wife* or his *wife-to-be*. Moreover, a pregnant woman can be referred to as an *expectant mother*, or simply as a *mother*.

The aging of counterfactual children in (1) is supported by cultural, or folk, models of pregnancy and parenthood. In one model, people are understood as existing before they are born, and are simply animated via parenthood. In Spanish, for example, we can speak of parents giving life to someone, *dar la vida a alguien*, as if their existence somehow preceded the gift of life.[3] On this model, pregnancy is a waiting period during which the child makes a journey. For instance, in English we can speak of the *baby* or *child* as *coming* or *arriving*, and the *parents* as *expecting*. Similarly, phrases such as *to bring a baby* or *child into the world* or *estar en camino* in Spanish (*being on the way*), and *onderweg zijn* in Dutch (*to be underway*) make explicit use of path metaphors. This cultural model is consistent with the BIRTH IS ARRIVAL metaphor (Lakoff & Turner, 1989, p. 1) and the euphemistic Birth Stork who brings babies from Paris (see Fauconnier & Turner, 1998 for an analysis of the conceptual blends underlying this myth).

Furthermore, pregnancy is construed as an ongoing directed process with a preordained outcome. As with other directed processes such as baking, we refer to

the changing object via its end-state rather than its beginning state. For example, in the case of baking, (5a) is more appropriate than (5b). In the case of parenting, (6a) is more appropriate than (6b):

(5) a. Seana is baking bread.
b. #Seana is baking dough.

(6) a. He has two little girls, and another kid on the way.
b. #He has two little girls, and another fetus on the way.

Jackendoff (2002, p. 370) notes that the meaning of words such as *fiancée* and *embryo* appeals to so-called *agentive qualia*, or properties that include an element's normative future (i.e. to be married or to develop into a physiologically and biologically independent individual). This is sustained even considering the fact that some couples break up before marriage and some embryos die before birth. Example (1) suggests that the concept of pregnancy as evoked by the topic of abortion affords a normative future that extends through childhood and into adulthood.

3. Coming out of the casket

The previous section discussed an example in which aborted fetuses are presented as they would be, other things being equal, in a counterfactual future space in which they had not been aborted. Turning the clock backwards, one can also conceptualize deceased individuals as having the properties they would have if still alive. Consider for instance the example below:

(7) Heck, we send young men and women off to war before they can drink a glass of beer in a public place. Odd? Extremely, odd! You can die for you country, but you can't have a Budweiser at your funeral. (*Campus Voice @ the University of Arkansas*, April 5, 2001)

In (7), a soldier who has been killed in war is not even allowed to enjoy a last beer. In this example, the impossibility of drinking beer at one's own funeral is presented as the unfair and illogical outcome of a federal law that the speaker opposes. Yet, due to the unalterable laws of life and death, the dead cannot have beer or, for that matter, any other beverage, regardless of the regulations at their time of death. This notwithstanding, through the presentation of a scenario in which a dead individual could — if allowed — have a drink, the author succeeds in bringing together the two issues he wishes to discuss: the minimum legal age to drink alcohol, and the age at which Americans are eligible to join the army. The absurd scene in the blend serves to underwrite the author's argument to lower the minimum drinking age in the United States.

As we have suggested, the conceptual integration of two scenarios into an absurd scenario in the blend is a common argumentative tactic. Moreover, the use of this technique is not confined to humorous discourse in college newspapers, but can also be observed when the stakes are considerably higher. Take the example below, from an actual jury deliberation in a high-profile murder case, videotaped and partly broadcast by an American television station:

(8) Juror 7: Barbara Davis [victim] doesn't get to come… when she turns 72 in that casket she doesn't get to come out of that casket.
Juror 11: Yeah, but there's not a guarantee that technically he'll get out either.
[…]
Juror 13: If she has no chance of getting out of the casket why should he have a chance of getting out of jail?
Juror 2: Exactly. (JurDel.B., p. 22)

This piece of conversation was produced at a point during the sentencing phase of the deliberation when jurors were discussing whether the 47-year-old defendant should receive a life sentence for the double murder they had found him guilty of, or alternatively 35 years in prison. Immediately before the discussion in (8) occurred, jurors had calculated that in the latter case, the defendant would be a free man at the age of 72. The two victims are dead and buried in their casket forever, while the defendant's future will depend/depends on the jury's decision. In (8), Juror 7 implicitly argues for a life sentence by evoking the somewhat absurd scenario of a dead 72-year-old victim attempting to escape from her coffin.

Unlike the argumentative discourse examined in the previous section, Juror 7's statement was not the carefully crafted work of advertising agents, but was produced spontaneously. Moreover, unlike many of the literary examples analyzed in the literature on conceptual blending (e.g. Dancygier, 2006; Fauconnier & Turner, 2002), the jurors in this deliberation were not attempting to be creative or entertaining, nor were they trying to impress an audience with their verbal wit. Rather, the statement was made in the course of a difficult and consequential decision about the way the defendant should spend the rest of his life. Critically, neither Juror 7 nor the other jurors ever explicitly said that they preferred a life sentence to 35 years in prison. But with the presentation of the absurd scenario in the blend, Juror 7's argumentative point was immediately understood and adopted by fellow discussants.

We suggest that Juror 7's argument is stated so succinctly because her listeners have already constructed a complex configuration of mental spaces and mappings between them. Based on information presented at the trial and their own discussion in the guilty phase of the deliberation, the jurors already have an understanding of Barbara Davis' life before she fell victim to this crime (as represented in the Pre-Crime Past Space in Figure 2), and an understanding of the events of the

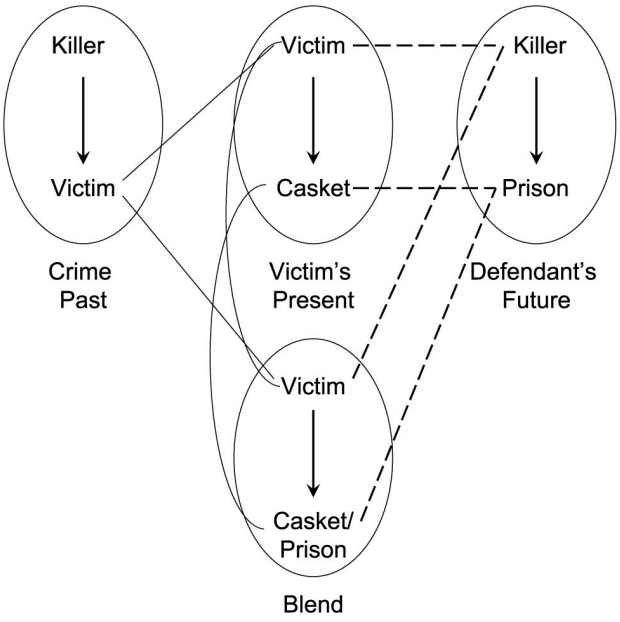

Figure 2. The Deceased as Permanent Prisoner

crime itself (as represented in the Crime Past Space in Figure 2). A Cause-Effect relation links the attack in the Crime Past Space to the Victim's Present Space, as well as to the Defendant's Hypothetical Future, as his jail sentence is construed as a consequence of his crime.

The key part of Juror 7's argument involves an analogy between the Victim's Present and the Defendant's Hypothetical Future, as well as an integration of these two domains. This integration both presupposes and highlights the similarities between caskets and prisons as well as similarities between being dead and being imprisoned. Caskets and prisons are both secluded and locked containers for humans, so that **Casket** in the Victim's Present is linked to **Prison** in the Defendant's Hypothetical Future. Selected structure from the Defendant's Hypothetical Future Space is projected to the Blended Space and integrated with structure from the Victim's Present Space.

In the blend, the victim's casket is construed as a prison from which, unlike the Defendant's Hypothetical Future, the possibility of release does not arise when she turns 72. Although dead, the victim ages in an analogous fashion to the prisoner. Further, the victim has the animate and intentional properties she had in the Past Space, before the crime occurred. She *turns 72* but does not *get* to come out of the casket. In the blend the victim, who was middle-aged when killed, is construed as 72 years old, and actively desiring to get out of her casket, but is unable to do so because she is dead.

The analogy between the victim's type of 'imprisonment' and the one implicitly suggested for the defendant is understood and presupposed in Juror 11's next turn: "there's not a guarantee that technically he'll get out either." The underlying understanding that the punishment proposed should either equal or come close to the crime is subsequently made explicit by Juror 13 in the form of a rhetorical question, "If she has no chance of getting out of the casket why should he have a chance of getting out of jail?" Thus, the integration in this example is motivated by the idea of justice as a balanced pair of scales. That is, an eye-for-an-eye cultural model of punishment is used, as the jurors seem to be trying to equate the effects of the crime with the effects of the punishment. Note also that in the context in which (8) was produced, the death penalty was not an option. Consequently, the eye-for-an-eye cultural model led the jurors to reframe the victim's death in terms of a prison sentence. Within this integration network, giving the defendant a chance of getting out of prison while the victim remains in her grave would be adding insult to injury, an unjust punishment.[4]

Objectively, the scenario in the blended space is utterly impossible. The dead victim cannot get any older — or at least she will not age in the same way that the defendant will. In fact, we might speculate that 35 years after her death, or at the time when she would have been 72 years old, most of her corpse would have succumbed to processes of decomposition. Further, being dead, the victim can have no desire either to stay in or to get out of her casket. But, just as we can conceptualize aborted fetuses growing up to become babies, children, teens, and young adults in a counterfactual future space, at the other end of the life cycle we can conceive of dead individuals going on to celebrate birthdays while buried six feet under.

In Section 2 we suggested that the somewhat unusual projection of an element from a past abortion space to a young adult in a counterfactual present was possible because of its consistency with cultural models of pregnancy and parenthood. Similarly, the mapping between a dead 35-year-old in the Victim's Present Space and a 72-year-old in the Blended Space is supported by conventional ways of speaking about the dead, as well as by cultural practices honoring dead celebrities. In fact, in everyday language, it is quite acceptable to talk about how old a deceased individual would be at a certain point in time. Further, when the dead person in question has achieved some degree of fame or notoriety in life, it is not unusual to celebrate the anniversary of their birth. In 2002, for instance, Barcelona celebrated the 150th birthday of the Catalan architect Antoni Gaudí ("Barcelona wishes Gaudi happy birthday," *BBC Online*, February 21, 2002).

The idea of the living as having a certain span of time to live their life is also reflected in common expressions such as *she left us too early* or *before her time*. Consider now a later intervention of Juror 3 in this same deliberation:

(9) Juror 3: …shouldn't he not [sic] spend his life in jail? They're spending their life in a coffin or what was left of it. Even if they died tomorrow, it doesn't matter. They don't have that chance to live that one more day. (JurDel.B, p. 156)

In this extract, the dead state of the victims is presented as *life* spent in a coffin. At the same time, the fact that the victims did not die of natural causes appears as an undue interruption in their life cycle. Had they not been killed, they would have gone on living until perhaps at least one day after the murder. The projection of an average life span or one supposedly assigned to particular individuals is what allows the simultaneous entertainment of these two apparently contradictory scenarios. To be sure, Juror 3 is most probably not deluded to believe death to be both some sort of permanent secluded life and the interruption of life altogether. Rather, the fragment in (9) — just as that in (8) — is motivated by the ideas of death as (after)life (even though they are dead, the victims age just as the defendant in prison); death as punishment (the victims have already been punished by having lost their lives); and death as interruption of life (had they not been killed the victims could have turned 72 outside their casket).

Despite the absurdity of the images in the blend, or indeed perhaps because of it, the arguments in (8) and (9) are rhetorically effective. The emergent inference from the blend is that with a 35-year sentence for the defendant, his punishment is less severe than the victim's, since her dead state is construed as permanent imprisonment. We suggest that the integration of the Victim's Present and the Defendant's Hypothetical Future is done so that the effects of the crime and the effects of the punishment are conceptualized together in the same mental space, and can thus receive equal attention. As in (7), the impossibility of the proposed integration is less important than the need to conceptualize all relevant factors in a single mental space.

The comprehensibility and argumentative power of these blends is partly related to the fact that they recruit an entrenched conceptual blend between post-mortem existence and everyday life. Indeed, life-in-death blends are common in religious and folk beliefs around the planet. In many cultures, the ghosts of the dead go on affecting the lives of those still living (e.g. Hutchins, 1987). Burial practices also implicitly embrace the life-in-death conceptualization when food, favorite objects, and images of the dear ones are placed with the corpse. The commonality and effectiveness of life-in-death blends have previously been noted in poetry (Freeman, 1997, 2001; Richardson, 2002), novels (Gerrig, 1993, p. 137), television commercials (Coulson & Oakley, 2000), as well as in art, journalism, and everyday conversation (Pascual, 2002, p. 168ff.). The life-in-death blend is also codified in language in the form of common expressions such as *to be spinning in one's grave*, variants of which also exist in Spanish (*removerse en su tumba*) and Dutch (*zich in zijn graf omdraaien/omkeren*).

In sum, the absurd blends presented in (8) and (9) are not entirely creative, as they are structured by a culturally meaningful conceptualization of death as (after)life. As for the efficacy of the argument presented, the judge, upon the advice of the jury, sentenced the defendant to two life terms.

4. Sacrificial snowflakes

In the previous section we considered how a juror making a moral decision set up a blend to integrate the scenarios associated with two key parties in the case, the victim and her murderer. Below we discuss another example that involves an integration of scenarios associated with two key participants in a moral dispute. Consider the attested example of persuasive discourse in (3), repeated below for convenience:

(3) Would I kill my daughter so I could walk again?

This example was produced by a paraplegic whose daughter developed from an embryo of the type that is used in embryonic stem cell research.[5] Stem cells are undifferentiated cells that can give rise to other types of cells. Certain medical researchers have argued that embryonic stem cells in particular, which can reproduce indefinitely, could one day be used to repair tissue, and even to grow new organs (National Institutes of Health, 2004). Consequently, stem cell research has potential applications for the treatment of a variety of degenerative diseases (Daley, 2005). This notwithstanding, embryonic stem cell research remains controversial because it requires the destruction of a human embryo (Scolding, 2005). While some scientists have considered cloning as a source of these embryos, most such research derives embryonic stem cells from embryos donated by couples undergoing in vitro fertilization (IVF) treatment for infertility (Hoffman, et al., 2003).

Advocates of stem cell research point to its tremendous potential to yield cures for common debilitating disorders, especially Alzheimer's disease and paralysis. Moreover, they point out that historically the embryos used in this research had been scheduled to be discarded. Opponents of stem cell research argue that the use of embryonic stem cells is ethically unacceptable, since it invariably results in the death of the human embryo from which those cells have been extracted. Further, a number of Christian organizations have sponsored programs in which embryos eligible for donation to research could be implanted in the wombs of "adoptive" mothers. For example, the Snowflakes Frozen Embryo Adoption program based in Fullerton, California affords infertile couples the opportunity to be implanted with embryos leftover from fertility clinics ("A home for frozen embryos," *US News and World Report*, September 27, 2004).

Presumably because both issues turn on when human life begins, many of the rhetorical techniques used in debates about abortion are also employed in persuasive discourse about the legitimacy of stem cell research. In particular, where anti-abortion activists focus almost exclusively on the fetus' potential life, opponents of stem cell research emphasize the embryo as a form of developing human life. For example, a BreakPoint Online article, published on a pro-life Christian association's website, describes a party held at the Bush White House for "Snowflake Kids," children conceived through IVF and subsequently implanted in unrelated "adoptive" mothers with the help of organizations such as the Snowflake Frozen Embryo Adoption agency (Morse, 2005).

The "snowflake kid" concept is a blend with three input spaces, the domain of snowflakes, the past, and the present. The snowflake **S** in the Snowflake Space is linked to the embryo **E** in the Past Space via analogy, in that both are easily construed as being frozen as well as unique. Further, **E** in the Past Space is linked to the kid **K** in the Present Space by identity. In the blend, these mappings are compressed to uniqueness as the two different developmental stages are conflated.

Table 2. Snowflake Kid Blend

Snowflake Space	Past Space	Blended Space	Present Space
Snowflake(S)	Embryo(E)	Snowflake Kid(SK)	Kid(K)
Frozen(S)	Frozen(E)	Frozen(SK)	
Unique(S)	Unique(E)	Unique(SK)	Unique(K)
	Person(E)?	Person(SK)	Person(K)

The embryo element in the Past Space has ambiguous moral properties and its personhood status is the subject of controversy between two ideological camps. The snowflake kid in the Blended Space, however, is unambiguously a person, having inherited this property from the Present Space. As in the examples of abortion rhetoric discussed in Section 2, where concepts relevant to the fetus are blended with those relevant to a full-term baby, the embryo-kid blend affords the possibility of applying frames (such as murder), that apply uncontroversially to the kid element in the Present Space, to the embryonic snowflake kid in the Blended Space.

Moreover, at least as described on the BreakPoint website, "Snowflake Kid" does not simply exploit the access principle in mental space theory (Fauconnier, 1994, §1.1), whereby an element in one mental space, i.e. the embryo in the Past Space, is described with language undisputedly applicable in another, i.e. the kid in the Present Space. A snowflake kid differs from a normal kid in being frozen and in being extremely small. Moreover, the framing of a snowflake kid differs quite a bit from the scientific treatment of the microscopic embryos used in stem cell research. For example, Morse (2005) describes the embryos as "tiny humans …

stored in liquid nitrogen tanks." Genetically related frozen embryos are described as "siblings" who "remain in these frozen orphanages."

Another upshot of the "kid" framing of embryos is the possibility of constructing counterfactuals such as (3), repeated below for convenience:

(3) Would I kill my daughter so I could walk again?

This example occurs in the context of the following paragraph from the Break-Point On-line article referred to above (Morse, 2005):

> "Among the parents was Steve Johnson, a paraplegic who, with his wife Kate, adopted an embryo whom they named Zara — now a little girl in a pink, flowered dress and blond curls playing near her father's wheelchair. Johnson described the years of pain, high medical costs, and limited mobility he'd endured after a bike accident 12 years before. 'My soul aches for a cure for my paralysis,' he said — but not at the cost of a child's life. 'Would I kill my daughter so I could walk again? Of course not. Then why do we think it is okay to kill someone else's kid?' he asked."

There are a number of things that are decidedly odd about Steve's argument. First, compared to the kid framing of the fetus in abortion rhetoric, the link between a frozen embryo and a fully developed child is more tenuous. In actuality, only 60% of the embryos to be 'adopted' are viable after being thawed, and less than 25% of implantations prove successful (Feldman, 2005). Second, because a number of basic scientific questions about cell specialization still need to be answered, it is unlikely that the immediate outcome of stem cell research will be a cure for paralysis. Finally, a school-aged child such as Zara, who per definition carries no embryonic stem cells, is not useful for stem cell research — regardless of whether she developed from a frozen embryo. These apparent absurdities are all related to the extensive use of compression in the formation of this argument.

One important compression actually serves as the input to Steve's argument in (3) and involves a standard argument in favor of the legitimacy of stem cell research. In the standard argument, any moral qualms one may have about the death of the human embryo are offset by the potential beneficial outcomes of stem cell research. The compression here is that experiments conducted in a large number of different laboratories over presumably many years are construed homogeneously as involving a single scientist working with a single embryo. In addition, the varied results of this research and its potential to yield knowledge necessary to provide a cure for afflictions such as spinal cord injury are compressed to a human scale scene in which stem cell research enables a paralysis victim to walk. It is this compressed event scenario that serves as an input to the blend Steve recruits in (3). It can be seen under the Hypothetical Space in the conceptual integration network outlined in Table 3. In essence, a scientist does research on a single stem cell that enables a paralysis victim to walk.

Steve's argument works by integrating the standard argument *for* stem cell research with his own situation to yield the emergent inference that the results of this research are undesirable. This blend is relevant to the argument because of the ways in which Steve's life maps onto the compressed hypothetical scenario put forth by advocates of stem cell research. The mappings among the elements in the "Kill My Daughter" blend are illustrated in Figure 3. Because, in the Present Space, **Steve** is a paralysis victim, he can be seen as the counterpart to the paralysis victim in the Hypothetical Space. Moreover, because **Embryo'** in the Past Space is the sort of embryo used in stem cell research, it can be seen as the counterpart to the **Embryo"** element in the Hypothetical Space. In the Blend, the analogy between Present **Steve** and Hypothetical **Victim"** becomes identity. Moreover, the analogy between Past **Embryo'** and Hypothetical **Embryo"**, and the identity between Present **Zara** and Past **Embryo'** are compressed into uniqueness. Because stem cell research involves harvesting cells from the embryo, links from **Zara*** to **Embryo"** and **StemCell"** involve Part–Whole compression of the latter two elements.

As can be seen in Table 3, the **Zara*** element in the blend inherits the properties of Present **Zara**, as well as the role of Hypothetical **Embryo"/StemCell"** in the compressed cure scenario inherited from the Hypothetical Space. As in many blends (Fauconnier & Turner, 2002), the structure in the Blended Space imputes an intentionality to the actor absent in the Hypothetical Space that serves as its input. In the Hypothetical Space, **Scientist"** does research on **StemCell"** intended to allow **Victim"** to walk, and the death of **Embryo"** is an unintentional side effect. In the Blended Space, however, **Steve*** intentionally kills **Zara*** to allow himself to walk. Because the blended **Zara*** shares more properties with the Present **Zara**

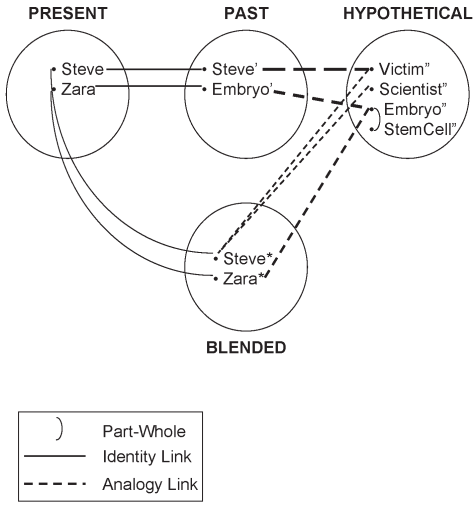

Figure 3. The Parricidal Paraplegic

Table 3. The Parricidal Paraplegic

Present Space	Past Space	Blended Space	Hypothetical Space
Steve	Steve'	Steve*	Victim"
Zara	Embryo'	Zara*	StemCell" → Embryo"
		Steve*	Scientist"
Girl(Zara)		Girl(Zara*)	
BlondeHair(Zara)		BlondeHair(Zara*)	
Daughter-of (Zara, Steve)		Daughter-of (Zara*,Steve*)	
Paralyzed(Steve)		Paralyzed(Steve*)	Paralyzed(Victim")
		CAUSE [Kill (Steve*, Zara*]	CAUSE [Research-on (Scientist", StemCell")]
		EFFECT [Allow-walk (Steve*,Steve*)]	EFFECT [Allow-walk (Scientist", Victim")
		Dead(Zara*)	Dead(Embryo")]

than she does with the Hypothetical **StemCell"**, the killing scenario in the blend is morally disturbing, while the moral judgment on the resulting embryonic death in the corresponding structure in the Hypothetical Space is far more controversial.

As noted above, the parricidal scene in the blend is somewhat absurd, since killing Zara will not result in a cure for her father's paralysis. Steve sets up an unrealistic counterfactual, concludes that it yields absurd results, and further concludes that the hypothetical input to the blend also yields absurd results. Nonetheless, Steve's rhetorical question serves as a pointed argument against stem cell research. In fact, Steve's argument was seen as so compelling that it was quoted by a professional writer working in the public relations division of a Christian ministry. We suggest that the blend in (3) is argumentatively effective because it brings the pros and cons of stem cell research into a human scale scene involving the two most relevant elements, the paralysis victim (who would eventually benefit from it) and the embryo (who would die as a result of it). As the most likely supporter of stem cell research, the paralysis victim's repudiation of it serves as a powerful argument.

5. Séance in the courtroom

The capacity to understand individuals in terms of a physical stage previous to the one they are in at the time of speech is not restricted to stem cell rhetoric. As discussed in Section 3, dead individuals can also be conceptualized and presented in

argumentative discourse as keeping some of the same properties of the living persons they once were. Taking this one step further, the dead can also be understood as having the joint experience of their past living and their present dead selves, and even the ability to act upon that experience. Consider first example (10), from a newspaper article on the trial for the murder of a woman named Helena (*San Diego Union-Tribune*, January 22, 2000):

(10) a. Deceased still fights for justice.
b. Helena is pointing at her murderer from the grave.
c. Helena is solving her own murder.

Helena was a Ph.D. in biochemistry, who worked for a company that developed special DNA probes. When she was murdered, the only evidence that could lead to her killer was the foreign hair found under her fingernails. Critically, the crime occurred in the 1980s, when DNA research was still in its infancy. Fifteen years later, investigators turned up a match between the DNA of Helena's murderer and that of a man arrested for a similar crime.[6]

In (10), the presentation of the deceased victim *fighting for justice*, *pointing at her murderer from the grave*, or *solving her own murder* involves a conceptual integration of different temporal domains. In the Past Pre-Crime Space, Helena works on DNA probes. In the Past Crime Space of the attack, she scratches her assailant. In the post-crime Present Space of the newspaper article, she is dead and buried, as the victim of that murder. The victim's past professional activities together with the events of the crime — pulling her assailant's hair — afford her construal in the blend as an investigator in her own case. As in the conceptualization of stem cell research discussed in the previous section, the research carried out by Helena stands for the research of different generations of scientists in different laboratories, as well as the work of forensic experts working to identify criminals. Also, note that whereas at the time of the crime the victim was most likely concentrating only on fighting off her assailant, the victim in the blend is consciously gathering genetic material from her murderer, so that future investigators can discover his identity. The temporal compression between the Past Space (where the scratching occurred but DNA identification was not yet available) and the Present Space (where scratching is widely understood to be a source of forensic evidence) is what affords the construal of Helena's actions as being intentional.

A similar case of the integration of pre-crime, crime, and post-crime spaces involving a death-life blend can be seen in (11):

(11) if by chance someone could cause a miracle, create a miracle, just a little one, for a short amount of time and bring Danielle [victim] back to life, just for a moment, just to help us out, bring her back to life, make her presentable

> here, ask her to come into this courtroom and help us determine the one question we need answered: who did this. Bring her into this courtroom and ask her: "Danielle, please tell us; who did this to you?" In turn, "I've already told you. I've already told you. I've told you with my hair. You know where you found it. I told you with the orange fiber that you found on my choker and where you found it. I told you with the blue fibers that were on my naked body and where you found them. I told you with my fingerprints. And I told you with my blood. Please listen."

This piece of discourse comes from the end of a prosecutor's closing argument to the American jury in a high-profile case for the kidnapping, sexual abuse and murder of a six-year-old girl. In this example, an impossible scenario is set up in which a dead individual is engaged in conversation in the trial for her own murder. Following the DEATH IS DEPARTURE metaphor (Lakoff & Turner, 1989), the lawyer's *miracle* brings the victim *back* to life. That is, it transports her from the afterlife to *life*, construed as the location she was before her death. This image involves the conceptual integration of a past space prior to the crime, where the young girl was aware of herself and her surroundings, possessed her own will, and was able to come into a room and recount her experiences, and the present space of the trial, in which she is dead, and therefore unable to walk into the courtroom to testify. Interestingly, in the blend, it is the Danielle prior to the crime, rather than the one with scratches all over her naked body, that appears to the jury.

As in (10), the speaker in (11) sets up an integration between the Present Space and a Past Crime Space. In this case, however, the victim is not just presented as alive and aware of her circumstance, but as an active participant in her own trial. In fact, since a trial is aimed at evaluating past criminal facts, as reconstructed in court, the integration of Past Crime and Present Trial space is not uncommon in the courtroom (Pascual 2002, §3.2.1). In particular, once brought to life in the jury's minds, the victim is asked to tell the court who assaulted her. Her response is that she has already answered the question through circumstantial evidence. This evidence consists of the discovery of her hair, fibers from her necklace, her fingerprints, and her blood — possibly resulting from the struggle that had taken place during the crime — in a motor home belonging to the defendant. During the trial, this evidence had been presented by the prosecution via the testimony of a series of forensic experts. Just as hair from a person can metonymically represent a person in a voodoo ceremony (Sørensen, 1997, 2004), the Part–Whole link between Danielle and her hair, blood, and fingerprints allows Danielle to speak with these elements in the blend.

Unlike the absurd images in our previous examples, most of which passed unnoticed, the imagery in this blend is literally qualified as a miracle. However, just

as in our previous examples, the blend is produced with particular argumentative goals in mind. In (11), it is aimed at convincing the jury that the material evidence provided during the trial is enough to find the defendant guilty beyond a reasonable doubt. The inference to be drawn is that even if the victim could be called to testify, she would not be revealing new information on the crime. We do not need a miracle after all, the available evidence suffices.

Besides the scene of a murder victim testifying, the blend is unrealistic in other ways. For example, the victim does not speak from her own perspective. Presumably, if a miracle had actually taken place and the victim had been able to tell the jury about the crime, one would expect her to directly accuse the defendant — assuming he was indeed the murderer — and add information which could not be reconstructed from the investigation, for instance about her pain and fear during the course of the crime. Instead, she refers to the evidence used by the prosecution, as though she had been following the trial, and knew what evidence was presented to the jury. In fact, it seems rather unrealistic for a six-year-old to know about forensic procedures and what would count as incriminating evidence in a legal proceeding. It is even more unlikely that at the time of the crime, Danielle would have anticipated the trial and consciously left traces of the crime for use in its later

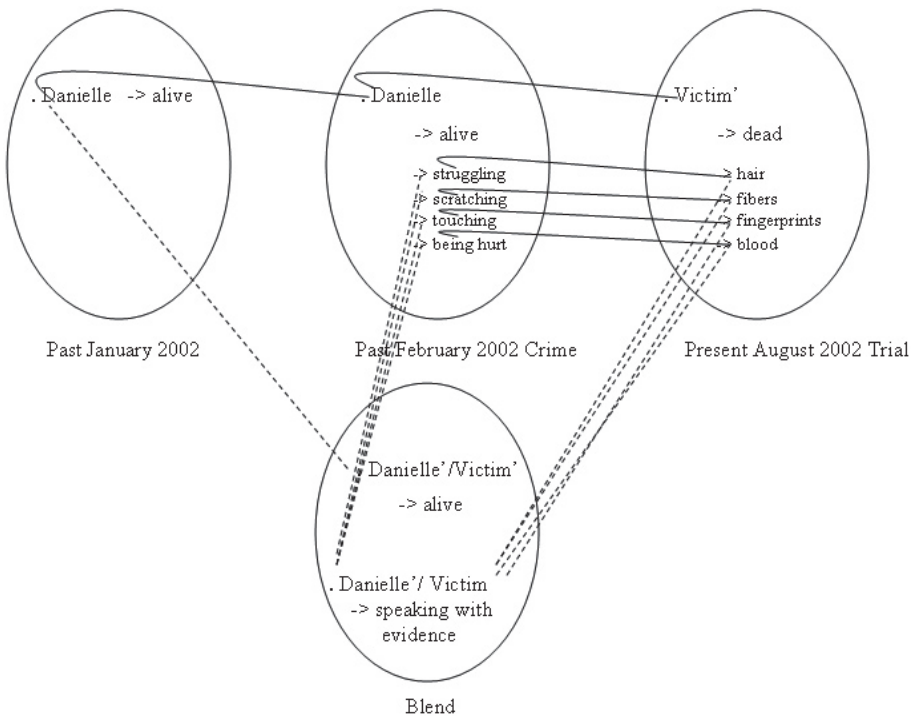

Figure 4. The Murder Victim Speaking Up

reconstruction by law enforcement officials. Yet, as in example (10), the temporal compression between the Past Crime and the Present Trial spaces allows us to impute intentionality in the blend.

The victim is presented as telling the jury that the circumstantial evidence presented by the prosecutor actually corresponds to hints or messages she left for them while being attacked, so they could be found and presented as accusatory evidence for her murder. All the jury need do is listen carefully to what the victim is 'telling' them with each bit of material evidence found at the crime scene. We seem to be dealing with the metonymic triggering of pragmatic inferencing (Panther & Thornburg, 2003) in a metonymic chain (Barcelona, 2005). First, an initial event (finding biological material from the victim's in the defendant's home) is used in order to mentally access a subsequent event (knowing as a fact that biological material from the victim's had been in the defendant's home). This INITIAL FOR SUBSEQUENT EVENT metonymy is then chained to the truly relevant metonymy, namely the EFFECT FOR CAUSE metonymy (Panther & Thornburg, 2000). It is through having found biological material belonging to the victim in the defendant's home (i.e. effect) that one can conclude that she was killed by him (i.e. possible cause).

Note too that in the blend, the inference one could draw from the presence of material evidence belonging to or associated with the victim in the defendant's property is presented as the victim's direct account of what happened to her. Thus, this image is not just structured by the rhetorical figure of *apostrophe* (cf. Richardson, 2002), in which an absent individual (in this case a dead person) is directly addressed. Since in (11) the individual in question actually speaks back to us, it seems fair to say that the image set up is structured by the frame of ordinary face-to-face conversation in a fictive interaction blend (Pascual, 2002, to appear). Fictive interaction involves a construal of living as well as non-living entities and states of affairs as communicating with people. Therefore, legal evidence can be presented as speaking in a similar fashion as a witness would (Pascual, 2002, p. 160). Also, in English a verb of saying can be used to represent speech as well as an interpretation or inference (e.g. "see what it's telling you," approximately paraphraseable as "see what it's inviting you to infer," Baynham, 1996: 74). Hence, it should not be surprising that in (11) Danielle is presented as using this same verb of communication in her imaginary courtroom address ("I already told you"). In fact, the image of a deceased person being conceptually called for a posthumous testimony is often used in modern litigation (Pascual, 2002, p. 162ff). Evidently, this is a longstanding tradition, as Quintilian advises litigators to "raise the dead" and call "imaginary conversations" in their court speeches (1921, Vol. IV: 21; Vol VI: 399ff.; Vol. IXX: 391).

Finally, it should be noted that, although the prosecution's case seemed quite compelling, no direct evidence against the accused had been found. There had been no eyewitnesses to the crime, except for the defendant, who did not admit guilt, and the victim, who did not survive the assault. The prosecution may have been concerned that the presentation of a case based purely on circumstantial evidence would leave room for reasonable doubt. Thus, by bringing the murder victim to life — if only conceptually — the prosecutor manages to turn circumstantial evidence into direct evidence. Through this blend, different bits of matter in different locations, gathered and presented for evaluation at different times and in different locations are compressed into one situated communicative event in which the best eyewitness, namely the victim, addresses the court and the ultimate arbiters, the jury.

In sum, the rhetorical image of a deceased victim testifying in her own murder trial should be understood as less far-fetched and phantasmal than it may seem at first sight. It should also be noted that it builds on shared knowledge as it occurs at the end of the district attorney's closing argument rebuttal. That is, it is produced after the image has been painted through the evidence step by step across the witnesses' testimony and the prosecutor's closing argument. Moreover, as has been shown, it is admissible and argumentatively powerful because it is built upon borrowed compressions that are part and parcel of human thought and language. One would thus expect the jury to follow the attorney in his integration network ride.

6. Conclusions

Cognitive linguistics in general and the theory of mental spaces and conceptual blending in particular have highlighted the role of fictivity, imagination, and counterfactuality in thought and language. In this paper we have dealt with the presentation of literally impossible and absurd scenarios for argumentative purposes. The focus was on conceptual blends involving the integration of two or more temporal domains. In particular, we discussed examples of: (1) fetuses aborted in the past as grown-up individuals missing from the present; (2) a murder victim aging in her casket, who wants to come out but cannot; (3) a paraplegic father of an adopted embryo killing his school-aged daughter so he can walk; and (4) a deceased murder victim speaking through material evidence in the trial for her own murder. In all of these cases, the conceptual integration network involves the compression of a present reality space with an actual or counterfactual past or future space.

However, the speakers' goal in these examples is not to draw attention to the absurdities in the blend, but rather to the inferences and conceptualizations that emerge from them. The issue is not that those who have never been born cannot

possibly be missing as persons with a fully developed body, nor that a dead individual cannot become older and try to get out of her coffin, that killing a little girl would not help a paraplegic to walk, nor that a murder victim cannot recount her experiences in open court. Rather, these blends suggest that it would be absurd — even cruel — to want one's friends and relatives to be missing, absurd to give a more severe punishment to a victim than to the one responsible for her misery, absurd to sacrifice one's child for one's own benefit, and absurd to ignore the evidence spoken by the victim and best eyewitness to a crime.

Unlike many examples in the blending literature, the unreal images in these blends are not presented for embellishment or humorous purposes. On the contrary, each is aimed at convincing addressees of the need to change a real state of affairs. Thus, the missing individuals in (1) serve to argue against the legal status of abortion, the aging corpse in (2) is used to call for a life sentence as the proper punishment for a convicted murderer, the parricidal paraplegic in (3) attempts to convince his audience that the ends of stem cell research do not justify the means, and the murder victim's post-mortem revelations in (4) should make it clear to the jury that the evidence presented at trial is sufficient to convict the defendant.

Interestingly, the impossible images discussed in this paper are not entirely creative, but rather have a common heritage in a culturally engrained blend in which our everyday situated and embodied experience of life is used as a general frame for the conceptualization of pre-natal and post-mortem ontological states. Likewise, they all appeal to a cultural model according to which one's life has a normative course from the embryonic stage, to childhood, adulthood and old age. They also utilize the STATES ARE LOCATIONS metaphor, which structures the understandings of birth as arrival, life as being present here and death as departure to a final destination (Lakoff & Turner, 1989, pp. 1–15). Furthermore, they are all either internally structured or motivated by the Annihilation model, according to which the intentional killing of a person is morally wrong (Ruiz de Mendoza, 1998). Besides the cultural models common to all four examples, each blend is also structured by more specific cognitive models (e.g. the eye-for-an-eye cultural model). The creation and production of these blends is further constrained by contextual factors in a fashion analogous to the way that context constrains the ultimate reference of a potentially ambiguous word or phrase (Fauconnier, 1994, p. 2). More specifically, we suggest that conceptual integration operations are greatly constrained by overall knowledge of: (1) the communicative event; (2) the cognitive task; (3) the issues dealt with; and (4) the discursive goal. For instance, in the getting out of her casket example in (8) the overall conceptual integration network was modeled by general constraints of jury deliberation, such as the requirement to support one's standpoint with arguments that appear fair and unbiased to fellow jurors. It was also constrained by the task jurors were involved in at that

point in the deliberation, namely deciding on the right punishment for the crime they had found the defendant guilty of. The cognitive domains and space elements set up responded to the issues they needed to consider in their decision-making, for example the fact that the defendant was responsible for the victim's death. Finally, the overall blending configuration in (8) was modeled by the utterer's discursive goal, namely the will to convince the other jurors that the defendant deserved a life sentence.

Clearly, the argumentative structure in these examples violates the classical idea of logical argumentation in which all the premises need to be true for the conclusion to be so. It also works against the folk belief that fiction has no truth-value relevance (Sweetser, 1987, p. 49). Yet, it does not seem that these arguments are weak in virtue of the impossible scenarios they present. On the contrary, we have suggested that these arguments owe their success (partly) to the way that the impossible imagery affords their presentation at a manageable human scale. Indeed, the blends discussed above are so efficient that their argumentative points need not be made explicitly. However, it is not the case that any absurd scenario involving compression to human scale will do.

At any particular point in ongoing discourse only a few cultural models are germane. Similarly, only a few elements, inhabiting contextually active mental spaces and linked to each other in particular ways, will appear as potentially relevant to interlocutors. Socio-cultural and contextual factors taken together will further motivate the projection of certain compressions so as to get all the relevant issues fused in the blend. Well known to rhetoricians, Aristotle (1994) called this technique *energeia* or *bringing-before-the-eyes*, in which the addressee witnesses in the present all that is supposed to have occurred up to the current point in the narrative. In moral argument, this compression is often used because it allows one to simultaneously attend to all the relevant concerns in the same conceptual domain (e.g. crime committed and punishment to be received).

As is frequently the case in cognitive linguistics, blending analyses motivate but do not predict the conceptual configurations set up by speakers. This has led critics of conceptual blending theory to argue that blending operations are too unconstrained to be useful (e.g. Bache, 2005, p. 1617; Gibbs, 2000, p. 349). Fauconnier & Turner (2002) have suggested that blending is constrained by the constitutive principles that define it (cross-space mappings, selective projection, and the generation of emergent structure), and the governing principles to, for example, compress relations and complete patterns. Indeed, the above analyses are consistent with the compression hierarchy suggested by Fauconnier & Turner (2002), as analogy was always compressed to identity, and identity to uniqueness in the blended space. Those same analyses, however, suggest that the novel construals that arise in blending are rooted in extant frames and cultural models retrieved in

situated communication. In fact, we might speculate that an activity such as argumentation serves as a constraint on blending, as speakers negotiate which mappings and compressions they find compelling.

In sum, we suggest that critics may find blending constraints to be vague because they are only part of the story. Blending operations are also jointly constrained by content and context, that is, by the frames and cultural models of a particular community and by the modeling factors of the here and now.

Notes

* The authors contributed equally to this paper, the names appear in alphabetical order. Esther Pascual was supported by grant 275–70–012 from the Netherlands Organization for Scientific Research (NWO). A short version of this paper was presented at the *First UK Cognitive Linguistics Conference* (Theme: 'New Directions in Cognitive Linguistics', University of Sussex, 23–25 Oct. 2005). We thank the audience for their useful comments. Also thanks to Theo Janssen, Charles Forceville, and an anonymous referee for comments on an earlier version of this paper. Of course, all shortcomings are ours. Corresponding author's email address: <e.pascual@let.vu.nl>.

1. Admittedly, this is a simplification because the ad posits a large number of elements in the Counterfactual 2003 Space whose age merits the *young adult* label. Each of those counterfactual elements is linked to an element in a space representing abortions over a larger time frame, e.g. from 1973–1983. This simplification, however, does not affect the substance of the analysis.

2. The mirror image of the anti-abortion conceptual network illustrated by (1), is the one in wrongful life rhetoric. This involves the claim that a particular human agent in a present space, usually a child, is so handicapped that one should have aborted its embryo counterpart in a past space (cf. Nys & Dute, 2004). In this type of argumentation, the disanalogy relation between embryo at t_1 and full-blown human at t_2 is opposite to the one in anti-abortion rhetoric. At Counterfactual Space t_2, one has no individual linked to the embryo at t_1 and the (strongly handicapped) child being 'missing' in the blend is construed as an acceptable if not desirable scenario.

3. The possession of the 'gift of life' lasts until death, as suggested by Spanish and English expressions such as *perder la vida*, to lose one's life, or in the case of murder, *quitar la vida a alguien*, to take someone's life.

4. The idea of death as unjust punishment is reinforced by the fact that, just as a rape victim is not responsible for an eventual pregnancy (Coulson, 2001, p. 232), the two murder victims in this case were neither responsible for their death nor did they get to negotiate an alternative with the defendant. Consider for instance the extract below from this same jury deliberation:

> Juror 3: They didn't get a choice at all. They didn't say, you know, "well it's okay if you kill me 'cause I'm gonna tell" no you [sic] or, "you know, I'll lock myself in my house for thirty years because I was going to tell on you as long as you don't kill me." (JurDel.B, p. 157)

5. For publications on the discursive and cultural aspects of the debate about stem cell research, see for instance the work of scholars at the "Institute for the Study of Genetics, Biorisks and Society" (http://www.nottingham.ac.uk/igbis/stemcellnetwork/cultural.htm#journart).

6. For details on this extraordinary story, see Samantha Weinberg's *Pointing from the Grave: A True Story of Murder and DNA* (New York: Hyperion, 2003).

7. Thanks to an anonymous referee for drawing this metonymic chain to our attention.

References

Aristotle. (1994). *On Rhetoric: A Theory of Civil Discourse. Book II.* (Translated by George Kennedy). Oxford and New York: Oxford University Press.

Bache, C. (2005). Constraining conceptual integration theory: Levels of blending and disintegration. *Journal of Pragmatics, 37*, 1615–1635.

Barcelona, A. (2005). Metonymic chains: Metonymy in discourse. In F.J. Ruiz de Mendoza Ibáñez & M.S. Peña Cervel (Eds.), *Cognitive Linguistics: Internal Dynamics and Interdisciplinary Interaction.* Berlin: Mouton de Gruyter.

Baynham, M. (1996). Direct speech: What's it doing in non-narrative discourse. *Journal of Pragmatics, 25*(1), 61–81.

Coulson, S. (1992). Is Incest Best? The Role of Pragmatic Scales and Cultural Models in Abortion Rhetoric. *Center for Research in Language Newsletter, 7*(2), 1–11.

Coulson, S. (2001). *Semantic Leaps: Frame-Shifting and Conceptual Blending in Meaning Construction*. Cambridge: Cambridge University Press.

Coulson, S. & T. Oakley. (2000). Blending basics. Special issue: Conceptual blending. *Cognitive Linguistics, 11*(3/4), 175–196.

Coulson, S. & T. Oakley. (2005). Blending and coded meaning: Literal and figurative meaning in cognitive semantics. *Journal of Pragmatics, 37*, 1510–1536.

Daley, G.Q. (2005). Customized human embryonic stem cells. *Nature Biotechnology*, 23(7): 826.

Dancygier, B. (guest Ed., 2006). Special issue. Conceptual Blending. *Language and Literature, 15*(1).

Danet, B. (1980). "Baby" or "fetus"? Language and the construction of reality in a manslaughter trial. *Semiotica, 32*, 187–219.

Fauconnier, G. ([1985] 1994). *Mental spaces: Aspects of Meaning Construction in Natural Languages*. Cambridge: Cambridge University Press.

Fauconnier, G. & M. Turner. (1994). Conceptual projection and middle spaces. La Jolla, CA: Cognitive science technical report, 9401.

Fauconnier, G. & M. Turner. (1998). Conceptual integration networks. *Cognitive Science, 2*(1), 133–187.

Fauconnier, G. & M. Turner. (2000). Compression and global insight. In S. Coulson & T. Oakley (guest Eds.), Special issue: Conceptual blending. *Cognitive Linguistics, 11*(3/4), 283–304.

Fauconnier, G. & M. Turner. (2002). *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities.* New York: Basic Books.

Feldman, L. (2005). "Beyond the stem-cell showdown." *Christian Science Monitor*, May 28, 2005.

Freeman, M.H. (1997). Grounded spaces: Deictic-self anaphors in the poetry of Emily Dickinson. *Language and Literature, 6*(1), 7–28.

Freeman, M.H. (2001). A question of two Englishes and the "*not but*" construction: A cognitive approach to poetry in translation. Paper presented at the *International Cognitive Linguistics Conference*. University of Santa Barbara, July 22–27, 2001.

Gerrig, R.J. (1993). Language use in narrative worlds. In *Experiencing Narrative Worlds: on the Psychological Activities of Reading.* New Haven: Yale University Press.

Gibbs, Jr., R.W. (2000). Making good psychology out of blending theory. *Cognitive Linguistics, 11*(3/4), 347–358.

Hoffman, D.I., G.L. Zellman, C.C. Fair, J.F. Mayer, J.G. Zeitz, W.E. Gibbons, & T.G. Turner (2003). Cryopreserved embryos in the United States and their availability for research. *Fertility and Sterility, 79*, 1063–1069.

Hutchins, E. (1987). Myth and experience in the Trobriand Islands. In D. Holland & N. Quinn (Eds.), *Cultural Models in Language and Thought* (pp. 269–289). Chicago, IL: University of Chicago Press.

Jackendoff, R. (2002). *Foundations of Language.* Oxford: Oxford University Press.

Lakoff. G. (2004). *Don't Think of an Elephant: Know Your Values and Frame the Debate*. New York: Chelsea Green Publishing.

Lakoff, G. & M. Turner. (1989). *More than Cool Reason: A Field Guide to Poetic Metaphor.* Chicago: University of Chicago Press.

Langacker, R.W. (1987). *Foundations of Cognitive Grammar*. Vol. 1. Stanford: Stanford University Press.

Lewandowska-Tomaszczyk, B. (2005). The nature of negation: Literal or not-literal. In S. Coulson & B. Lewandowska-Tomaszczyk (Eds.), *The Literal and the Non-literal in Language and Thought*. Berlin: Lang.

Morse, A. (2005). Snowflake kids: What should we do with frozen embryos? *BreakPoint Online*, June 22, 2005.

National Institutes of Health. (2004). Stem cell basics. July 19, 2004.

Nys, H.F.L. & J.C.J. Dute. (2004). A wrongful existence in the Netherlands. *Journal of Medical Ethics, 30*, 393–394.

Oakley, T. (2005). Negation and blending: A cognitive rhetorical approach. In S. Coulson & B. Lewandowska-Tomaszczyk (Eds.), *The Literal and the Non-literal in Language and Thought*. Berlin: Lang.

Okie, S. (2005). Stem-cell research: Signposts and roadblocks. *New England Journal of Medicine, 353*, 1–5.

Panther, K.-U. & L.L. Thornburg. (2000). The effect for cause in English Grammar. In A. Barcelona (Ed.), *Metaphor and Metonymy at the Crossroads* (pp. 215–231). Berlin: Mouton de Gruyter.

Panther, K.-U. & L.L. Thornburg (Eds). (2003). *Metonymy and Pragmatic Inferencing.* Amsterdam/Philadelphia: John Benjamins.

Pascual, E. (2002). *Imaginary Trialogues: Conceptual Blending and Fictive Interaction in Criminal Courts.* Utrecht: LOT 68.

Pascual, E. (to appear). Fictive interaction blends in everyday life and courtroom settings. In A. Hougaard & T. Oakley (Eds.), *Mental Space Approaches to Discourse and Interaction*. Amsterdam: John Benjamins.

Pustejovsky, J. (1995). *The Generative Lexicon*. Cambridge, Mass: MIT Press.

Quintilian. (1921). *Institutio Oratoria*. [Translated by Butler, H.E.] 4 vols. Cambridge: Harvard University Press, IV, 1, 28.
Richardson, A. (2002). Apostrophe in life and in romantic art: Everyday discourse, overhearing, and poetic address. *Style, 36*(3), 363–385.
Ruiz de Mendoza Ibáñez, F.J. (1998). On the nature of blending as a cognitive phenomenon. *Journal of Pragmatics, 30*(3), 259–274.
Scolding, N. (2005). Stem-cell therapy: Hope and hype. *The Lancet, 365*, 2073–2075.
Sørensen, J. (1997). Iconicity in Magic: Metaphor and similarity in ritual performance. Papers from international conference on Image in language and non-language.
Sørensen, J. (2004). Magic among the Trobriands: Conceptual mapping in magical rituals. Almen Semiotik.
Sweetser, E. (1987). The definition of *lie*: An examination of the folk theories underlying a semantic prototype. In D. Holland & N. Quinn (Eds.), *Cultural Models in Language and Thought* (pp. 43–66). Chicago: University of Chicago Press.

Authors' addresses

Seana Coulson
Department of Cognitive Science
University of California San Diego
9500 Gilman Drive
La Jolla, CA 92093–0515
USA

coulson@cogsci.ucsd.edu

Esther Pascual
Department of Language and Communication
Faculty of Arts, Vrije Universiteit
De Boelelaan, 1105
1081 HV-Amsterdam
The Netherlands

e.pascual@let.vu.nl

About the authors

Seana Coulson is Associate Professor in the Cognitive Science Department at the University of California, San Diego (UCSD). The author of *Semantic Leaps: Frame-shifting and Conceptual Blending in Meaning Construction* (CUP), her research addresses the cognitive and neural underpinnings of high-level language comprehension.

Esther Pascual is a post-doctoral scholar at the Faculty of Arts of the Vrije Universiteit Amsterdam. She is mainly interested in the intersection of language, interaction and cognition or what she calls 'fictive interaction.' She is currently working on a four-year project to investigate the phenomenon.