A Course in Pictorial and Multimodal Metaphor

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Lecture 6. Metaphor, hybrids, and blending theory

Introduction

A relatively recent development in cognitive linguistics that is rooted in metaphor theory is "blending theory," an approach primarily connected with the names of Gilles Fauconnier and Mark Turner (e.g., Turner and Fauconnier 1995, Fauconnier and Turner 1998, 2000, 2002). In this lecture, blending theory will be briefly explained, and its potential uses for the analysis of visual and multimodal metaphor (see Forceville and Urios-Aparisi 2009) and hybrids in static images will be examined.

Blending Theory

Blending Theory was fathered by Gilles Fauconnier and Mark Turner, and its most complete version hitherto appeared in these authors' monograph *The Way We Think* (2002). There is both promise and problems in the theory (Forceville 2004; Câmara Pereira 2007), and my mixed feelings will transpire in this Lecture. But let me begin by introducing the theory (which is indebted to Arthur Koestler's 1969 notion of "bisociation") as I understand it. Basically, Blending Theory (BT) offers a way to model representations that are, in one way or another, hybrids consisting of at least two entities, so-called "input spaces." Input spaces are mental spaces that differ from what in metaphor theory are called "domains." Whereas domains label very general, abstract concepts, input spaces constitute ad-hoc, specific instantiations of domains. The specificity of an input space is due to various contextual constraints that derive from the communicative situation in which it is used.

To facilitate the discussion, the following example will be used. In a famous experiment at Columbia University, under the supervision of Herbert Terrace, chimpanzees' ability to learn language was investigated. One of the language-learning apes was called "Nim Chimpsky."

The hybrid representation "Nim Chimpsky" is the "blend" that results from integrating selected elements of the input spaces in an appropriate manner. The

two input spaces in our example are the name of the renowned linguist "Noam Chomsky" and the word "chimpanzee" combined with the "typical" ape name "Nim." In order to allow for a felicitous integration, the input spaces must share some conceptual structure to start with. What the input spaces share includes such characteristics as "being primates" and "being creatures living in groups." These shared characteristics are represented in the so-called "generic space." But the blend also contains characteristics that it inherits from only one of the input spaces. Indeed, each of the two (or more) input spaces needs to bestow at least one property to the blended space that the other input space(s) does/do not – otherwise there is no need for the input space in the first place. What the "Chomsky" space bestows to the blend, or blended space, is something that could be rendered as "being the founder of Generative Linguistics, and proponent of the view that the ability to use language is innate." The chimpanzee input space bestows simply "being a chimpanzee." The blend labels a specific chimpanzee that, supposedly, uses (sign) language. It is important to note that while it is two *concepts* that are combined in the blend, the blend only works due to the fortuitous combinability of the name "Noam Chomsky" and the word "chimpanzee." Note that the blend would be less felicitous than, say, "Nim Lakoffsky," not only because George Lakoff is less famous than his one-time teacher Chomsky, but also because there is hardly any *formal* resemblance between his name and the combination of "Nim" and the word "chimpanzee."

In the simplified BT diagram (see figure 1), this is how "Nim Chimpsky" would be represented: The uninterrupted line between the dots in the two input spaces, and the interrupted lines between these same dots and the dots in the generic space and the blend, indicate shared properties. In addition, there will always be one or more lines going from each of the input spaces to the blend but not to each other or to the generic space, since these lines symbolize the unique properties that an input space lends to the blend. (The open circles in the blend presumably specify properties that are derived from neither input space; it is not clear to me where they are supposed to come from.)
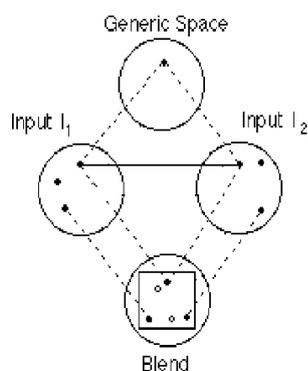

Figure 1. Adapted from: Fauconnier and Turner (2002: 46).

A few comments are in order. "Nim Chimpsky," here modeled as a blend, surely is a metaphor: the language-using chimpanzee is metaphorically compared to the linguist Noam Chomsky. The punning *form* in which this is done is spectacular – somewhat reminiscent of the "sigh-tempests" in John Donne's "A Valediction: Forbidding Mourning"(1633) – but what happens conceptually conforms to what happens in metaphors, as theorized in this Course. All this is no surprise, since metaphors are one of the subtypes of blends (Grady et al. 1999). Other subtypes are counterfactuals such as "if I were you …" and hybrid genres, such as "tragic-comedies."

I have problems, however, with BT's claim that it is superior to metaphor theory in that it can better deal with "emergent structure" (Fauconnier and Turner 2002: Chapter 15). Admittedly, Conceptual Metaphor Theory (CMT) focuses on deeply entrenched structural metaphors, while its attempts to account for creative metaphors (Lakoff and Turner 1989) are not entirely satisfactory (for some discussion, see Forceville 2006; Forceville et al. 2006). But one of the great predecessors of CMT, Max Black's (1979) "interaction theory," undoubtedly deals with emergent structure. Implicitly, Black made use of a Blending Theory model in his analysis of metaphor. In the Pascal example "Man is a thinking reed" he discusses, the generic space contains the attribute "being organic phenomena" – and perhaps, "having a vertical orientation" – while the input space "man" contributes the property "(capable of) thinking" and the input space "reed" contributes the property, say, "being vulnerable to the forces of nature." (Pascal's original phrase "L'homme […] est un roseau pensant" arguably adds the property "beauty" to the blend.) The same mechanism can be recruited for "marriage is a zero-sum game," where the blend is the fighting-type of marriage in which the benefits of one partner are understood as complementary to those of the other partner (Black 1979: 30; for more discussion see Forceville 1996: chapter 2; Lecture 2 of this Course). As in any creative metaphor, or metaphorical blend, the result is more than the sum of the parts – and this is what is meant by "emergent structure." Black himself was acutely aware of this meaning-creating dimension: "the meaning of an interesting metaphor is typically new or "creative," not inferable from the standard lexicon. A major task for theorists of metaphor, then, is to explain how such an outcome – striking for all its familiarity – is brought about" (Black 1979: 23). (Experimental work on the basis of Black's theory can be found in Gineste et al. 2000.)

Another point worth discussing is that blends appear to have fewer constraints with respect to the directionality of mapping than metaphors. As has continually been emphasized throughout this Course, each metaphor has a target and a source, and the mappings go from source to target, not vice versa. Calling a "creative metaphor" a "metaphorical blend" does not change this. With

reference to creative metaphor, BT offers no more and no less than a way to visualize what happens; starting from the blend one determines which input spaces have contributed to it, and how. As such, it thus does not provide insight, since we backtrack from the result (for suggestions how to optimize the opportunities for BT to become a theory of creativity, see Veale et al. in prep., Forceville in prep., submitted).

Finally, what I miss in BT is an explicit discussion of the pragmatic dimension of blends. Blends are hybrid structures used in communication, and are therefore deployed for a specific purpose. Precisely because blends are contextualized ad-hoc structures, it is necessary to discuss them as intentional, discursive chunks of information in a communicative situation, since the context in which the blend is used may well determine which are the unique properties that each of the input spaces contributes to the blend. A crucial aspect of this context is the "activity type" (Goffman 1974) in which the user of a blend is involved. "Genre" is a central factor here: if we do not know, or can guess, in what discursive genre a blend is used, we will have difficulties understanding it. All of this fits the Relevance Theory model (Pateman 1983, Sperber and Wilson 1995, Wilson and Sperber 2004), upon which I will not elaborate here (for applications to multimodal discourse, see Forceville 1996: Chapter 5; 2005, 2009a; Yus 2008).

Perhaps one can sum up the weaknesses of BT in the conclusion that "there seems to be no specific set of rules for analyzing a blend other than intuition" (Camara Pereira 2007: 67). This being said, I think BT has strengths as well; here is a brief, non-exhaustive catalogue.

One of the insights BT provides is that many conceptual structures are in fact combinations or hybrids of two or more other concepts, and that this is what metaphors, counterfactuals, hybrids and a host of other phenomena share with each other.

A second strength is that the blending template encourages a search for *patterns*. Is each creative blend radically unique or are there generalizations to be made? Fauconnier and Turner propose that many blends tap into one of a limited number of "vital relations." One of these is "telescoping time": in a substantial number of blends we map internal relations between moments in a long stretch of time (e.g., a lifetime, a year) onto a shorter stretch of time. A multimodal example of this is the documentary film genre of the "city symphony" – dating back to the 1920s but still a productive genre. The central idea is the portrayal of "a day in the life of a city," typically beginning early in the morning and ending late at night. Examples of these are *Rien Que les Heures* (Alberto Cavalcanti, 1926), *Berlin: die Sinfonie der Großstadt* (Walther Ruttman, 1927), *A Propos de*

Nice (Jean Vigo, 1930), *Historia de un Dia* (Rosana Matecki, 2009). Here the 24 hours of a day are compressed into a film of one, two hours. Clearly, "telescoping time" and other vital relations must be explored in far greater detail to assess their viability.

A third potential strength, somewhat neglected in Fauconnier and Turner (2002), is that blends can draw on *more* than two input spaces simultaneously. If and where this is appropriate, BT could handle some kinds of representations that metaphor theory could not, or not as easily deal with, since the latter always has only two domains (one way of getting round this is to postulate a nested metaphor structure: the metaphor B IS C leads to a "transformed" domain which we can call B2, which can in turn become the source in a new metaphor A IS B2).

A fourth strength is that BT can conveniently model input spaces exemplifying information in different modalities, for instance the verbal and the visual modality.

A fifth strength is that because the basic model is suitably rigorous, it can serve as a starting point for the development of creative computer programs (Câmara Pereira 2007).

To conclude this section, my view is that BT can help model creative metaphors in a manner that formalizes Black's interaction theory of metaphor, but that it does not have, at this stage of its development (see also Fauconnier and Turner 2008) much to contribute to metaphor theory. That being said, let me now discuss a number of "hybrid" images from a BT perspective. If it were to be objected that this is much like having a hammer (the BT model) and looking for nails (applications), I plead guilty. I believe, however, that this is a good way to aid reflection on what the model can and cannot do, and help pave the way for either improving the model or finding alternatives for it where applying it to visual hybrids is either unproductive or impossible.

Case 1: Figure-ground hybrids

One could argue that the well-known figures providing different representations if one reverses the figure-ground relation (figures 1, 2, and 3) are examples of blends. Since there is nothing that privileges either the rabbit or the duck, the faces or the vase, the young lady or the old lady, it makes no sense to treat them as pictorial metaphors: each of the input spaces contributes on the same hierarchical level to the blended space. Moreover, both input spaces are necessary for the blend. However, if these count as a blends, they are very

unusual ones, since we cannot see the two input space at the same time. Another problem is that, however intriguing, the hybrids' success depends *only* on formal properties; there is no conceptual gain, or exterior purpose for their creation. Our response is typically, "how clever!" or "amazing how such simple pictures can play games with our perception!"
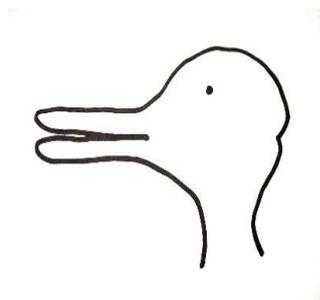

Figure 1. Rabbit-Duck.　　　Figure 2. Faces-Vase.　　　Figure 3. Old-young lady.
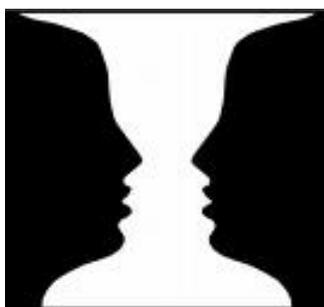
Case 2: Artistic hybrids

Related to the examples in figures 1-3 are hybrids such as those by Salvador Dalí (figure 4) and René Magritte (figure 5), which are based on the same "now you see the one, now you see the other" principle. The fantastically simple hybrid by Picasso (figure 6) is materially different from these not only in being a sculpture, but also in creatively *juxtaposing* two different things, a bicycle saddle and a bicycle steer, to suggest a bull's head. What makes figures 4-6 similar to figures 1-3 is that the visually spectacular nature of the hybrids depends on form. What makes them different, I would argue, is that, if for no other reason that they belong to the genre of art and have been created by legendary artists, we are invited to expend mental energy on deriving inferences triggered by these blends. Thus the Dalí painting might make us wonder whether we would ever be tricked in real life by such a *trompe-l'oeuil*, while the Magritte painting might be taken to suggest that for a (heterosexual) man, each woman's face evokes sexual associations, or that faces are as intimate as bare torsos. The Picasso sculpture perhaps triggers admiration for the fact that both elements come from the same object (a bicycle), and may remind us that the bull is an icon in the painter's native Spain.
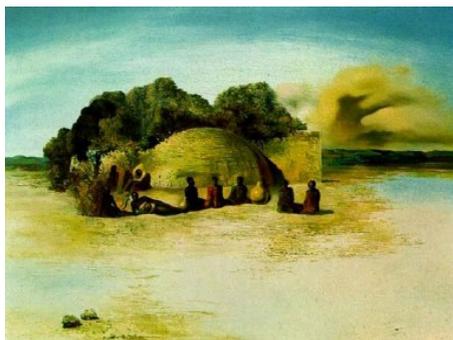
Figure 4. Salvador Dalí, "Paranoiac Face" (1930s).

Figure 5. René Magritte, "Le Viol" (1934).

Figure 6. Pablo Picasso, "Bull's Head" (1943).

I disagree with Noel Carroll, who argues, partly on the basis of Surrealist art such as discussed here, that visual/pictorial metaphors differ from verbal ones in being more often reversible (for more discussion about my views on Carroll's (1994, 1996) theory of metaphor, see Forceville 2002). These are non-metaphoric blends.

Figures 7a-f. Wim Sonneveld creatively transforms a lampshade into various head dresses and a collar. Source: Henk van der Meyden, *De Mens Wim Sonneveld Zoals U Hem Niet Kende*. Amsterdam: Teleboek, 1975, p. 63.

Now consider figure 7. The Dutch *chansonnier*, actor and entertainer Wim Sonneveld (1917-1974) spots a lampshade's affordances to create four different types of head dress and a collar. For the sake of argument, let us assume that the five novel applications indeed really deploy the original lampshade that Sonneveld looks at in figure 7a. Its uses in figures 7b-7f could be modeled drawing on the BT model with in each case the "lampshade" as one of the input spaces. Apart from the attributes "aesthetically filtering the piercing light of a lamp's bulb" and "giving a certain colour to a lamp's light," this particular lampshade also provides the material attribute "displaying a regular pattern of folds/foldable in a certain manner." It is this material attribute, foldability, that we also find in the other input space in 7b-7f, and which hence would also be represented in the generic space.

A few things are to be noticed. In the first place, it would be very difficult, if not impossible, to capture with precision in words in what respects the "foldability" differs in each of the new head dress (and one collar) input spaces for 7b-f. This shows, once again, that different modes have different "affordances" – that is, manners of conveying pertinent information.

A second observation is that ideally we are supposed to recruit a third, only virtually present input space, namely that of the actual headdress that Sonneveld simulates. Thus 7a, 7b, and 7f may be supposed to remind us of images such as 8, 9, and 10.

Figure 8. "The Milk maid" (Jan Vermeer ± 1658).

Figure 9. A traditional Chinese hat.

Figure 10. A Dutch farmer's wife's head dress.

A related, point is that these "virtual head dress input spaces" can only be activated by those familiar with them. This, in turn, requires socio-historical knowledge. Thus I estimate that the head dress depicted in figure 7f, showing a classic Dutch farmer's wife cap, will be more easily accessible to Dutch people than to non-Dutch people – and to older Dutch people than to youngsters.

Fourthly, it should not be underestimated to what extent Sonneveld's facial expressions and gestures (and in 7b the prop of the jug) help identify the folded

contraptions as specific types of hats/a collar. With a different gesture and expression figure 7c could have been a Mexican instead of a Chinese hat. Indeed, it would be doubtful whether we would recognize the contraptions as hats/a collar at all if we were presented with them in isolation (i.e. without Sonneveld's face).

Finally, I would argue that it would be inappropriate to construe metaphors here. Surely, we would describe the situations as something like: "Wim Sonneveld jokingly shows how one could turn a lampshade into various types of hat" – not as HEAD DRESS IS LAMPSHADE. This again has much to do with the fact that only visual/material similarities are created between the lampshade and the head dresses, no conceptual ones. The lampshade itself as depicted in figure 7a is an added, but not indispensable element for enjoying Sonneveld's playfulness in the other panels. One could argue that the lampshade is a quasi-realistic motivation for the lampooning more than anything else.

Case 3: Furniture hybrids

Mundane examples blends can be found in multiple purpose furniture design (figures 11 and 12). Since the hybrids can function equally well as tables and as chairs, the two input spaces (table and chair) are on the same hierarchical level, and thus do not invite construal as metaphors. Figure 13 – a sofa designed by Dalí – is an interesting case. One of the input spaces is "sofa" and the other is "(Mae West's) lips." To me, this is a clever blending of formal properties of the two input spaces, and while the hybrid invites the joke of an "ass-kissing sofa," I would construe this as a three-dimensional visual pun rather than as a metaphor.

Figure 11. "Switch table chair" (Ellen Ectors).

Figure 12. "Tona chair" (Diego Gonzalez King).
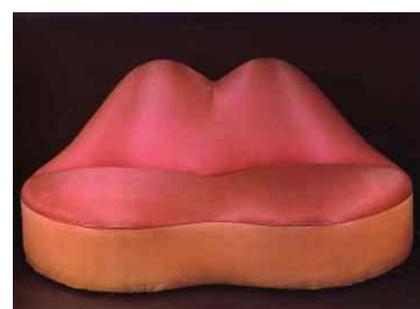
Figure 13. "Mae West Lips" sofa (Salvador Dalí, 1938).

Case 4: Hybrids in public space

Figures 14 and 15 are two of the photos I am in the habit of making of objects, texts, and other phenomena in public spaces that, for one reason or another, I

find striking. Here, both scenes depicted irrepressibly reminded me of tombs in a graveyard. Let us suppose that you can share my apperception of visual similarity between both scenes and that of a graveyard (e.g., figure 16).

In the BT model, elements from figures 14 and 15 that occur in both input spaces (and therefore also in the generic space) are, say, "vertical and (sometimes) horizontal slabs of stone in a relatively green space containing few or no other man-made objects." These elements, moreover, are retained in the blended space. But the blended space must in addition contain unique features of each input space. I submit that in figure 14 and 15 these probably include the objects' denotation: "electricity site," and "building site," respectively, and for some people perhaps connotations such as "eyesores in public space." The denotation of figure 16 is "tombstones" or "graveyard," while connotations pertaining to death and burial are ready for activation. The blend mixes some of these.

Figure 14. Electricity site in public space, Zierikzee, NL (photo by Charles Forceville, 2007).

Figure 15. Building site, Middelburg, NL (photo by Charles Forceville, 2009).

Figure 16. Graveyard with tombstones.

A few remarks are in order. First, figure 16 is just an *example* of a graveyard – not the precise picture I had necessarily in mind when taking the photos in figures 14 and 15. It thus consists of an example of a typical, but virtual "intertext," just as in the cases of the original head dresses/collar in figure 7.

This is important in light of the question how we know which features end up in the blend. Well, in fact we cannot know this without further knowledge. For one thing, all three figures can trigger other connotations. In the spirit of Max Black's Star of David, discussed in Lecture 1, we could assess that figure 14 exemplifies "yellow-and-brown-and-grey-and-green-ness," "circularity, squareness, and verticality," as well as "stoniness." Figure 15 similarly suggests "verticality" and "stoniness" and, more so than figure 14, "patterned design." What about figure 16? As indicated, it is just an illustration of a graveyard with tombstones, an exemplification of the abstract "graveyard" model I had in mind. But it is typical enough to exemplify tombstones' connotations of "patterned layout in space," and "rectangularity."

Up till now, I have left out of the discussion the crucial dimension of the purpose of the blend. A hybrid, of whatever modality or combination of modalities, only makes sense as a blend if it is somehow the outcome of a purposive activity. So what is the purpose of the "municipal-electricity/building site-as-graveyard" (or "rectangular-stone-pattern-as-tombstones") blend? Well, there wasn't one, really …. I can only tell you that the reason I made each of the photographs is that I saw a striking resemblance between both sites and a graveyard, and I thought that I might one day do something with this. And I was right: I have found a purpose for exploiting the resemblance, namely discussing BT with you right now. Up till now, resemblance was latently present, but not until it could be recruited in some form of communication could this potentiality materialize. Only as part of a specific act of communication can a blend be sensibly analyzed. Again, this reveals the pertinence of Relevance Theory. Please note that it is not very difficult to imagine contexts in which figures 14 and 15 could be used for *other* communicative purposes. Figure 14 could be deployed as a protest by angry civilians against municipal policies to unaesthetically place electricity sites in public space, while figure 15 could similarly be exploited in a newsletter by a local action committee agitating against the building of a block of houses.

In the scenario where I simply took the picture because I was struck by the similarity between the input spaces, the blend is a visual pun. In the more purposive situations I imagined, the blend is a metaphorical one: ELECTRICITY PATCH/BUILDING SITE IS GRAVEYARD, and thus perfectly analyzable in terms of Black's interaction theory. It would moreover be difficult to reverse target and source and think of a context where they made sense. In fact, I suspect that constraints on reversibility – non-reversibility being a hallmark of metaphor – hold true for quite a few non-metaphorical blends, too. In counterfactuals such as "If I were you …," the statement is about "you" in terms of "me" – and not the other way round. It will be fruitful to systematically distinguish blends that can be reformulated as metaphors from those that cannot. An example of the latter is Duncker's "riddle of the monk," made famous in Koestler (1969) and often discussed in the BT literature (e.g. in Fauconnier and Turner 2002: Chapter 3); another is the "child doctors" advertisement (Fauconnier and Turner 2002: 65-70).

Here is another example of an ad-hoc hybrid in public space. Please excuse the feeble joke – not very original in its kind at all – in figure 17. It is a photograph I took of a statue of the god Hermes/Mercurius, while behind it smoke emitted from a factory chimney is visible.

Figure 17. Hermes statue, Château Neercanne, Maastricht, NL (photo by Charles Forceville, 2009).

The "Hermes" input space contains, I submit, among others the attributes "human being," "nakedness," "exhibiting classic beauty and proportions," and crucially, "capable of breaking wind"; the "factory" input contains "producing goods," "consisting of buildings," and, crucially, "having chimneys exuding smoke." The blended space has "Hermes breaking wind." Although the example does not deserve extended discussion, a few observations can be made. The moment at, and the angle from, which the photograph is taken are crucial for the joke (in fact I took a few photos to "get it right"). Furthermore, both the fact that the statue represented a naked person rather than a clothed one and that it is a classic, "high culture" statue are pertinent. Stretching the issue, perhaps, one could point to the frictive similarity residing in the "verticality" of the column of smoke and the staff Hermes holds in his right hand. This parallelism (which I had not aimed for or realized when taking the photograph) arguably contributes to the humorous tension arising from combining high culture and puerile bawdiness.

Again, I would discuss the blend in terms of a highly expendable visual pun, where the interpretation "Hermes farts" exhausts the hybrid. Of course, in a situation where Hermes were to be metonymically linked to something else, say to a company that refers to Hermes in its logo, or that is called "Hermes," the present photograph could be used, or abused, to ridicule that company metaphorically.

Case 5: Hybrids in visual communication

The two final examples I want to discuss hail from yet another genre: that of illustrations accompanying articles in newspapers and magazines. Figure 18 shows a vertically depicted, half-open red purse with coins in it. That we are to "read" more into this picture may not be immediately obvious, but undoubtedly the theme of the article that it accompanies will help. The article discusses the growing economic power of women in The Netherlands. We are to understand the purse, then, not just as a purse but also as female genitalia – another virtual image we are to recruit from world knowledge. Once we understand the blend, thanks to the context of the article, the input spaces can retrospectively be rendered as "economic power" and "femaleness." We would have to say that the purse/genitalia blend is verbally "anchored" in Barthes' (1986/1964) sense. It seems contrived to consider this hybrid a metaphor, that is, as something like FEMALE GENITALIA ARE PURSES, although it is not impossible do so. The blend, whose success depends on the striking similarity (including the purse's form, colour, and furriness) that exists *in this particular image* between the two input spaces, is more appropriately labeled a visual pun. In a different context, incidentally, this visual pun could have cued "prostitution," for instance.

The last example I want to discuss in this Lecture is figure 19 (the text in the upper left corner translates as "issue"). Although it may not be immediately clear, its salient objects are crumpled paper tissues. The illustration accompanies an article titled "Dagdroom, dag depressie" ("Daydream, bye depression") in which it is argued that regular fantasizing may help keep a depression at bay. (The cover of the magazine has a variant of this picture, and the superimposed text "Droom uw depressie weg: praten en pillen zijn niet genoeg," i.e., "Dream your depression away: talking and pills are not enough.") Would it make sense to discuss this ingenious visual puzzle in terms of a blend? Clearly, the viewer is to activate certain specific connotations: the crumpled tissues metonymically cue "crying here" here, specifically the crying that one (supposedly) does as a result of a depression, or even more specifically, perhaps, the crying that one does when discussing one's depression with a therapist. The clouds in this situation are metonyms for daydreaming. I submit that the birds on the one hand help us recognize the blue background as "clouds," and on the other as "flying/moving/going away." Clearly, this construal would not have been possible without anchoring text.

It is not useful to analyse this collage in terms of three input spaces, if only because it would be difficult to find shared elements for the generic space (although we could see similarity of fluffy form and whiteness between clouds and crumpled tissues). Rather, the three visual elements are metonyms (see Forceville 2009b) for events that are causally related to one another: "If you

have a *depression*, you should *daydream and fantasize*, and then your depression might *go away*." The striking nature of this rebus-like image thus appears to reside in the designer's creativity in finding good metonyms for the central concepts of the article's title, and thinking of a form in which they quasi-realistically co-occur. If this makes sense, this alerts us to the necessity to think beyond metaphors and blends for modeling visually emergent structure.
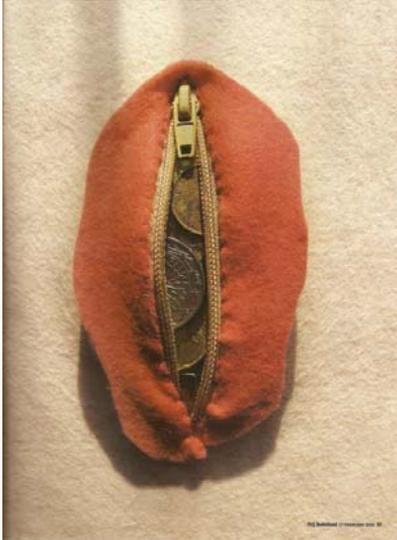
Figure 18. *Vrij Nederland,* illustration accompanying article on growing economic power of women (27 February 2010, p. 89 by Liesbeth Maliepaard and Tirza Laan).

Figure 19. *Vrij Nederland*, illustration accompanying article "Dagdroom, dag depressie" (13 February 2010, p. 40, by Anouk Kruithof).

Some conclusions

In this lecture, I have argued that BT provides a way to model metaphors in a way that formalizes, but does not add to, the insights of Black (1979). For present purposes, its promise resides in its ability to model other, non-metaphorical, hybrids, both visual and multimodal ones, and multi-space as well as double-space varieties. The analyses of various cases revealed that a pragmatic dimension is indispensable for discussing blends of whatever type. In fact, pragmatic factors may turn a visual pun into a pictorial/visual metaphor. One of the two input spaces in a blend may be visually absent, having to be evoked from memory; this latter means that socio-historical knowledge is often indispensable to cue an input space. While the analysis of some "figures of depiction" (Tversky 2001) may benefit from BT, the last example (figure 19) suggests that in its current state BT cannot account for all forms of visual creativity. It will have to be seen whether BT is a good theory for modeling visual hybrids (for another approach, see Shen 2010).

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References

Barthes, Roland (1986/1964). Rhetoric of the image. In: *The Responsibility of Forms* (21-40). Trans. by Richard Howard. Oxford: Blackwell.

Black, Max (1979). More about metaphor. In: Andrew Ortony (ed.), *Metaphor and Thought* (19-43). Cambridge: Cambridge University Press.

Câmara Pereira, Francisco (2007). *Creativity and Artificial Intelligence: A Conceptual Blending Approach*. Berlin: Mouton de Gruyter.

Carroll, Noel (1994). Visual metaphor. In: Jaakko Hintikka (ed.), *Aspects of Metaphor* (189-218). Dordrecht: Kluwer.

Carroll, Noel (1996). A note on film metaphor. In: *Theorizing the Moving Image* (212-223). Cambridge: Cambridge University Press.

Fauconnier, Gilles, and Mark Turner (1998). Conceptual integration networks. *Cognitive Science* 22: 133-87.

Fauconnier, Gilles, and Mark Turner (2000). Compression and global insight. *Cognitive Linguistics* 11: 283-304.

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

Fauconnier, Gilles, and Mark Turner (2008). Rethinking metaphor. In: Raymond W. Gibbs, Jr. (ed), *The Cambridge Handbook of Metaphor and Thought* (53-66). Cambridge: Cambridge University Press.

Forceville Charles (1996). *Pictorial Metaphor in Advertising*. London: Routledge.

Forceville, Charles (2002). The identification of target and source in pictorial metaphors. *Journal of Pragmatics* 34: 1-14.

Forceville, Charles (2005). Addressing an audience: time, place, and genre in Peter Van Straaten's calendar cartoons. *Humor* 18: 247-278.

Forceville, Charles (2009a). Relevanz und Prägnanz: Kunst als Kommunikation. Trans. by Martina Plümacher. *Zeitschrift für Semiotik* 31: 47-63.

Forceville, Charles (2009b). Metonymy in visual and audiovisual discourse. In: Arsenio Jésus Moya-Guijarro and Eija Ventola (eds.), *The World Told and the World Shown: Issues in Multisemiotics* (56-74). Basingstoke: Palgrave MacMillan,

Forceville, Charles (submitted). Creativity in pictorial and multimodal advertising metaphors. In: Rodney Jones (ed.), *Proceedings Discourse and Creativity* conference, Hong Kong City University (May 2009).

Forceville, Charles (in prep.). Creative visual variation in comics balloons.

Forceville, Charles, and Eduardo Urios-Aparisi (eds.) (2009). *Multimodal Metaphor*. Berlin: Mouton de Gruyter.

Gineste, Marie-Dominique, Bipin Indurkhya, and Véronique Scart (2000). Emergence of features in metaphor comprehension. *Metaphor and Symbol* 15: 117-135.

Goffman, Erving (1974). *Frame Analysis: An Essay on the Organization of Experience*. New York: Harper & Row.

Grady, Joseph, Todd Oakley, and Seana Coulson (1999). Blending and metaphor. In: Raymond W. Gibbs, Jr. and Gerard J. Steen (eds.), *Metaphor in Cognitive Linguistics* (101-24). Amsterdam: John Benjamins.

Koestler, Arthur (1969 [1964]). *The Art of Creation*. London: Hutchinson.

Lakoff, George, and Mark Turner (1989). *More Than Cool Reason: A Field Guide to Poetic*

Metaphor. Chicago: University of Chicago Press.

Pateman, Trevor (1983). How is understanding an advertisement possible? In: Howard Davis and Paul Walton (eds.), *Language, Image, Media* (187-204). Oxford: Blackwell.

Shen, Yeshayahu (2010). The perception of visual hybrids: the role of language. Paper presented at *Cognitive Poetics and Rhetoric 5.0* conference (University of Łódź, Poland, 28-30 January).

Sperber, Dan, and Deirdre Wilson (1995). *Relevance: Communication and Cognition* (2nd edition). Oxford: Blackwell.

Turner, Mark and Gilles Fauconnier (1995). Conceptual integration and formal expression. *Metaphor and Symbolic Activity* 10: 183-204.

Tversky, Barbara (2001). Spatial schemas in depictions. In: Merideth Gattis (ed.), *Spatial Schemas and Abstract Thought* (79-112). Cambridge MA: MIT.

Veale, Tony, Kurt Feyaerts, and Charles Forceville (in prep.). Hiding in plain sight.

Wilson, Deirdre, and Dan Sperber (2004). Relevance Theory. In: Laurence R. Horn and Gregory Ward (eds.), *The Handbook of Pragmatics* (607-632). Malden MA: Blackwell.

Yus, F. (2008) Inferring from comics: a multi-stage account. In: Pelegrí Sancho Cremades, Carmen Gregori Signes, and Santiago Renard (eds): *El Discurs del Còmic* (223-249). Valencia: University of Valencia.

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http://eshopafrica.com/acatalog/Ga_Coffins.html Creative African designs blending two input spaces. One series blends coffins with a range of other objects [last accessed 3 March 2010].