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What role does the creative use of figurative operations play in the success of Internet videos?

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Abstract

Prior work has investigated the attributes of internet videos and the factors that make them go viral, identifying emotional valence, emotional intensity, and surprise as key to their success. However, little is known about how the structure and complexity of the content of such videos contributes to their success. One factor that may account for the success of internet marketing videos (at least in part) is the presence of figurative operations and the creative use thereof. Metaphor, metonymy, irony, hyperbole, and understatement, have been shown to relate to success in other forms of advertising. In this paper we outline an investigation that explored the presence of these different kinds of figurative operation, as well as their density and positioning, and the ways in which they are used creatively. We found irony and figurative language based on creative contrasts between contrasting scenarios to be strong predictors of popularity. This effect increased if the message was rendered through the combination of images with words, rather than in either of the two modes in isolation. Finally, no effect was found for the positioning of figurative operations in the advertisement's timeline. Our findings contribute to the wider marketing field by establishing figurative operations, in particular irony, as a key determinant of a video's success.

Keywords:

Metaphor, metonymy, advertising, creativity, hyperbole, understatement, irony.

1. Introduction

In response to the growing importance of social media in recent years, brand developers have started to make advertising videos that have the potential to be viewed, liked, commented upon and shared on digital platforms, such as Youtube. Many of these videos contain creative uses of figurative communication in the form of words, images and music. The dynamic, multimodal nature of the videos means that they provide an excellent test base to explore the role of figurative creativity across different modes.

With the exception of a few studies (e.g. Berger and Milkman 2012; Dobeles et al. 2007; Guadagno et al. 2013; Kaplan and Haenlein 2011), the prevalence and success of Internet videos have been largely under-investigated in the literature. Kaplan and Haenlein (2011) have argued that their popularity is likely to depend on three factors: the influence of the *messenger* (i.e. information specialists that have access to a wide audiences, such as celebrities and experts); finding the right *timing and context* (e.g. commercials shown during the Super Bowl final are known to become viral, due to the large audience attracted by the match); and making the *message* interesting, impactful and memorable.

The focus in this paper is on the *message*. More specifically, we investigate whether the creative use of figurative operations (e.g. metaphor, metonymy, hyperbole, understatement, irony) in the words, music or images that the videos contain relates in any way to the popularity of the videos. Related to this, we also explore the role of humour, which often results from the creative use of the figurative operations listed

above. Humorous content has been also found to lead to popularity of internet videos (Tucker, 2015; Hsieh, Hsieh & Tang, 2012).

Constructing and creative and engaging video advert requires skills and a great deal of nuance. As pointed out by Kaplan and Haenlein (2011: 257), “making a message more memorable and interesting, or simply more infectious, is often not a matter of major changes but minor adjustments.” However, the nature of these “minor adjustments” is not clear. Guadagno and colleagues (2013, p. 2312) add that, “only content that generates stronger affective responses are likely to spread as a viral video”, although the “qualities [that] lead some Internet videos to reach millions of viewers while others languish in obscurity”, still remains largely understudied.

In our view, it is precisely the potential for creativity - and thus, for emotional appeal - that makes figurative operations good contributors to the success of video advertisements. In the more traditional area of advertising research, metaphor (the most widely studied figurative operation) has been shown to lead to favorable attitudes towards advertisements (McQuarrie and Mick 1999). It has also been found to make them more likely to be remembered (McQuarrie and Mick 2003). There is a strong likelihood that the presence of figurative language will contribute to the success of an internet marketing video as it has been found, among other things, to evoke shared knowledge and therefore empathy, evoke affective responses, entertain, and perform subtle persuasive functions.

However, there has been surprisingly little research into the effect of other figurative operations such as irony, euphemism, hyperbole and understatement (which can operate alone or in conjunction with metaphor and metonymy) on the effectiveness of branded content, which is surprising given the potential rhetorical effectiveness. They all involve the evocation of shared knowledge, which allows the perceiver to

establish a relationship between what is said and what is intended. This makes them potentially powerful tools in branding as their presence may help to establish a subtle relationship between the consumer and the product.

In this paper, we describe a study in which we sought to identify the extent to which the creative use of figurative operations in Internet videos relates to their popularity. We were particularly interested in exploring the impact of the density of the figurative operations, the types of figurative operation and their coverage, and their positioning with the video. The paper comprises six sections. In Section 2 we provide an overview of the types of figurative language subject of this study (metaphor, metonymy, irony, unmarked contrast, hyperbole, and understatement), and illustrate their creative use in real Internet videos. In Section 3 we describe the way in which we operationalized the variables in our analysis: density, coverage and positioning, and formulate the research questions driving this research. We deal with methodological considerations in Section 4, to then report our findings in Section 5. We conclude this paper in Section 6 where we retrieve the main proposals put forward in our investigation and suggest potential lines for further research.

2. The creative use of figurative operations in internet videos

In this study we investigated the role played by the creative use of different types of figurative operations in making Internet videos more impacting and memorable (and thus, more prone to become viral).

2.1. Making creative use of the connection between two entities: Metaphor and metonymy

Multimodal metaphor, a concept first introduced by Forceville (2009), has attracted a significant amount of scholarly interest in recent years. Forceville and Urios-Aparisi (2009, and references therein), Hidalgo and Kraljevic (2011), and Pérez Sobrino (2017), have shown that the cross-domain mappings facilitated by multimodal metaphor are a useful tool for advertisers as they allow organizations to borrow positive values from a well-connoted scenario (the *source* domain) and attach them to the promoted commodity (the *target* domain). Metaphor has been found to be more effective than literal language in traditional forms of advertising, particularly when it is used creatively (Phillips and McQuarrie, 2009), and visual metaphors have been found to be more effective than verbal metaphors in printed advertisements (Ang and Lim 2006, Chang and Yen 2013, Gkiouzepas and Hogg 2011, Jeong 2008, McQuarrie and Phillips 2005, Morgan and Reichert 1999, Phillips and McQuarrie 2009). It is for these reasons that Esso famously invited consumers to ‘put a tiger in the tank’, and for their subsequent advertisements to feature a photograph of a tiger in the wild. As we will see in the examples below, creative metaphors involve novel source and target domain combinations or a creative realization of a conventional mapping thus highlighting non-conventional aspects of the source and target.

Metaphor can be broadly divided into two types: resemblance metaphor and correlational metaphor (Grady 1999, Yu 2009). Resemblance metaphors exploit the perceptual similarities between two different entities, so the source is used to refer to a target that simply looks or sounds like it. An example of a resemblance metaphor can be seen in the advertisement of *Old Spice* soap, which is shown in *Figure 1*. In this

advertisement, what initially looks like a basketball ends up being a watermelon. This creative connection between two unexpected entities is possible because both are characterized by a spherical shape. This does not mean that the connection is expected, as it violates the expectations triggered by the preceding audiovisual content. Up to this point, the advertisement seems to be about soap for sportsmen who are “playing to win” (according to what the jingle says). The fact that the basketball turns out to be a watermelon that contains the promoted soap triggers a surprise effect that is reinforced in the lyrics of the accompanying jingle: “(If you’re playing to win), here’s a brand new soap for you. Nope I was wrong this is a commercial for fruit. Nope I was right it’s really a commercial for soap.”



Figure 1. Still from “Old Spice soap - Watermelon” advertisement

In contrast, correlational metaphors are built upon the systematic conflation of two experiences, usually one abstract and one concrete. For example, affection is often experienced, and therefore described, as warmth (e.g. ‘*Charles is a cold fish and Diana needs someone warm*’, BNC), moving forward in time is often experienced, and

therefore described, as moving forward in space (e.g. *‘They were teenagers, looking ahead to a life where anything wonderful could happen’*, BNC), and happiness is often experienced as and therefore described as having an erect body posture (e.g. *‘My meeting with the Countess was an uplifting occasion’*, BNC). In each of these correlational metaphors, the structure and logic of the source is used to reason about the target wherever a correspondence is plausible. Correlational metaphors are particularly suitable to convey stories and experiences in audiovisual discourse (Forceville 2006, 2011; Ortiz 2011). *Figure 2*, shows an advertisement for Dove soap which makes creative use of the correlational metaphor: MOVING FORWARD IN TIME IS MOVING FORWARD IN SPACE. In this advert, as women walk towards a building, they are invited to choose one of two doors to walk through. One door is marked ‘beautiful’ and the other is marked ‘average’. Women are encouraged by their family and friends to go through the “beautiful” door as a way to overcome a social barrier and to live their lives, viewing themselves as someone who is “beautiful” rather than “average”. Our knowledge of doors as physical barriers allows us to think about the different decisions they may take and the different directions that their lives will go in as a result. This metaphorical scenario provides a creative representation of the daily struggles that women face in their lives.



Figure 2. Still from the Dove advertisement

One possible reason for the success of metaphors in advertising is that when faced with a metaphor, particularly a creative one, the reader or listener has to draw the conclusion for themselves and this leads to an increased sense of ownership of the message (Stayman and Kardes 1992). This sense of ownership is likely to make them better disposed to the message via the ‘instant endowment effect’ (Kahneman, Knetsch, and Thaler 1991) and, by extension, to the product. In the case of correlational metaphor in particular, another possible reason for the success is that they have been found to evoke sensorimotor responses in the reader/listener (Gibbs 2014). Neuroimaging studies have shown that when a person encounters, or experiences, a correlational metaphor, a sensorimotor representation is generated in the brain, so for example, when we see or hear the word ‘warmth’ used metaphorically, we have an internal representation of the physical experience of warmth (Lacey et al. 2012), and metaphorical uses of words involving parts of the body (e.g. ‘grasp a concept’ and ‘kick a habit’) activate the motor cortex in the same way as their literal counterparts (Boulenger, Hauk, and Pulvermueller 2009). The engagement with these regions increases with the creativity of the metaphor (Desai et al. 2011). The processing of

correlational metaphors has also been found to activate the amygdala, a part of the brain that is associated with automatic processing of intense emotional stimuli (Citron and Goldberg 2015). Citron and Goldberg point out that left amygdala activation has been found to facilitate the successful encoding of emotional verbal material in the hippocampus (Phelps 2004, Richardson, Strange, and Dolan 2004), and that concurrent activation of these two regions has been associated with the successful retrieval of emotional memories (Dolcos, LaBar, and Cabeza 2005). Thus individuals have very powerful motoric and affective responses to metaphors, which means that they are likely to remember them.

Metonymy involves the mental construction of a concept by means of a related concept (for example, the use of ‘Wall Street’ to refer to the American financial markets). It can be found in a wider range of forms of expression, including language, art, music, dance and film (for a review, see Littlemore, 2015), where it operates as a kind of communicative shorthand and allows people to use their shared knowledge of the world to communicate with fewer words than they would otherwise need. It has been shown to serve a wide variety of communicative functions, such as relationship-building, evaluation, the reinforcement of group membership and cohesion, and the development of textual cohesion (Littlemore, 2015).

Metonymy has the potential to be a very effective tool in branding because it makes it possible to represent features of the message in an economical and straightforward way. Moreover, it can be used in highly creative and humorous ways (Littlemore and Tagg, 2018), which renders it a potentially useful tool in audiovisual advertising, where humor has been shown to be a valuable resource (Chan, 2011). We can see an example of the creative use of metonymy in an advertising video in *Figure 3*, which is taken from the video *Air New Zealand: An Unexpected Briefing*. This

advertisement features a number of visual and audial elements from the movie of “The Lord of the Rings” (elves, orcs, dwarfs, hobbits, and the characteristic musical theme in the background) to stand for New Zealand (i.e., the country in which the film was made). The metonymy FILM FOR LOCATION takes advantage of the popularity of a cultural reference (the film) to give new prominence to this particular subdomain in representations of New Zealand. The creative reversal of viewers’ expectations in terms of typical images of New Zealand (which might normally involve, for example, sheep and green fields) is designed to make them see New Zealand in a new light. This use of metonymy leads to the metaphor of a flight as a quest.



Figure 3. Still from “Air NZ: An unexpected briefing”.

2.2. Making creative use of the contrast between two realities: Irony and unmarked contrast

Irony is a figure of speech and thought that involves a deliberate violation of expectations, thus evoking a contrast between expectation and reality (Gibbs 2000,

p.13). The incongruity is intentional, and often leads to humorous and/or malicious communicative effects (Barbe 1995, Gibbs 2000, Leggitt and Gibbs 2000). In advertising, irony is mainly used to provoke a humorous effect and it has been argued that this can increase the appeal of the advertisement (Stern 2012). The boundaries between humour and irony are indeed fuzzy: research reveals that they both share similar interpretive mechanisms (Attardo 2000, 2001a; Gibbs and Izett 2005, Giora 1995), since the successful interpretation depends significantly on the correct identification of the speaker's intentions and goals, as well as on the awareness of the clash between scenarios that makes it impossible to understand the utterance in a literal way.

Studies of irony in advertising to date focused primarily on verbal irony where it has been found to be appreciated, but understandably, only if it is fully understood (Lagerwerf 2007). *Verbal irony* involves the use of words to mean something different from what a person actually says. For example, in “‘He’ll be furious. Thanks a lot.’ Tremayne said repressively” (BNC). Tremayne is not in fact thanking his interlocutor, rather the opposite. An example of verbal irony can be seen in the still from *Skoda Fabia – Attention test* shown in *Figure 4*. This advert invites viewers to participate in an attention test in order to prove that the design of the new Škoda Fabia is so “attention stealing” that viewers will not be able to spot all the changes that are being introduced in the background. The test is introduced by a voiceover that asks viewers: “Will the 17 inch black alloy wheels stop passers by in their tracks? Will the angular headlights attract the attention of other road users? Will a crowd gather to check out its fresh sporty look?” This can be interpreted as a case of verbal irony, as the advertisement clearly shows that no one is gathering around the parked car, but rather, passers-by ignore the parked car. Indeed, the speaker in the voiceover ends up

acknowledging the fact that he might have exaggerated the “attention –stealing” power of the car by saying: “Well, not quite”. However, later it is shown that the whole background has changed during the course of the advertisement, proving that the car is able to attract the viewers’ attention after all. The creative component of the video derives from the unnoticed and unexpected background change rather than from the verbal irony per se.



Figure 4a & 4b. Stills from “Skoda Fabia – Attention test”(before and after the test)

Situational irony involves a discrepancy between what is expected to happen and what actually happens. It also includes coincidences, counterfactuals, and shifts in focus. For example, the advertisement of *Evian: Baby and me* shown in *Figure 5* shows a man walking along a street looking attractive, confident and rather pleased with himself. He catches sight of himself in a shop window. Surprisingly, the reflection that he sees does not depict him as an adult but as a very young child. When he sees this, his reaction is to start dancing with his reflection. The video continues with the arrival of several other adults who first see the adults dancing, think it is odd, then see their own reflections in the window and start dancing themselves. Two expectations are violated in this video. Firstly there is an unexpected and creative contrast between the adults’ views of themselves and the reflections they see in the mirror, and secondly upon seeing these reflections their reaction is to start dancing, oblivious to passers-by

(who in turn see their own reflections and start dancing). The combination of these two violations means that we have humorous situational irony running right through the video.



Figure 5. Still from “Evian: Baby & me” advertisement

Finally, *dramatic irony* is said to occur when the viewer is equipped with a piece of information that one of the characters in the narrative is unaware of, thus placing them a step ahead of that character. Dramatic irony is often present in televised pranks, where the viewer knows about the prank but the subject of the prank does not. There is thus a creative juxtaposition of the viewer’s knowledge and expectations and those of the protagonist. Possessing this kind of information creates a sense of “anxiety” in the viewer as he or she does not know when the person subject to the prank will find out about it, and how he or she will react to it. We can see an example

of this in the case of the *LG: Elevator prank* shown in *Figure 6*. Only the organisers of the prank and the viewers are aware that the base of the elevator is made of screens, and thus that the accident is just an illusion. The humorous effects arise from the fact that the people subject to the prank think that they are going to fall down the elevator shaft, and this increases the sense of expectation in the viewer.



Figure 6a & 6b. Stills from “LG – Elevator prank” advertisement (preparation and execution of the prank)

We also identified a separate category for all cases featuring any kind of contrast that did not involve any of the figurative operations mentioned above. An example of *unmarked contrast* can be seen in *Figure 7*: The video opens with a young boy doing a headstand on the roof of a skyscraper in Singapore. The fact that the video opens in mid action is designed to create a sense of anxiety in the viewer given that there are no clues as to why he is doing such risky acrobatics in such a dangerous spot. All of a sudden, the advertisement fades to black and resumes right at the beginning of the day, when three boys (including the one that opened the advertisement) land at Singapore airport and film themselves leaving the airport. In our view, there are no pragmatic effects triggered by the juxtaposition of these two contrasting scenes. Rather, the abrupt gap between these two moments in the day increases the need for

viewers to fill the missing information, and therefore, it encourages them to continue watching the video.



Figure 7a & 7B: Stills from “LG camera – Gamblerz Crew”

2.3. Strengthening and mitigating the message: the creative use of hyperbole and understatement

Hyperbole involves the representation of a given state of affairs as being more extreme than it actually is (or in some cases, could ever be) with the goal of strengthening the communicative impact of the utterance on the hearer. When producing a hyperbole such as ‘*The building is now worth a million times its original sale price!*’ (BNC), the speaker strengthens the message to an unrealistic extent (the building is probably only worth five or ten times as much as it was originally worth). Once the hearer realizes the hyperbolic meaning of the speaker’s statement, he or she must consequently mitigate it in order to access the message and will correlate the intensity of the hyperbole with the speaker’s intention to impress. Hyperbole creates a sense of shared understanding between speakers as both the speaker and listener need to ‘enter a pact of acceptance of extreme case formulations, the creation of impossible worlds, and/or apparent counterfactuality’ (McCarthy and Carter, 2004: 149). McCarthy and Carter’s corpus evidence shows that, in conversation, hyperbole

frequently provokes items such as markers indicating shifts in footing (e.g. “so”...), listener acceptance tokens (such as “yeah, mm, and so on”), laughter, and listeners’ own further contributions to the emerging hyperbolic context. Moreover, hyperbole has been shown to trigger emotional responses in the reader/listener, have a strong persuasive component, and serve as a basis for humor (Claridge, 2011).

All of this suggests that in the context of internet marketing videos, the use of hyperbole may help to develop a closer, more intimate, light-hearted relationship with potential consumers. We can see an example of the creative use of hyperbole (combined with a situational irony) in *Figure 8* which is a still taken from an advertisement for Doritos. In this video, a foetus responds to its father moving a Dorito crisp from side to side to such an extent that when the mother throws it away in exasperation, the foetus follows it and exits the womb. There is a strong set of assumptions here, at least in Western cultures that during an ultrasound scan, people will behave in a particular way. The couple will be excited to see their baby, they may become a little emotional, but above all, they will be completely absorbed in the moment. In this video, these expectations are completely turned on their head when the father-to-be starts eating Doritos, and then plays with the foetus by moving a Dorito backwards and forwards, encouraging the foetus to imitate the movements. This makes his wife very angry, while the (female) doctor simply rolls her eyes in sympathy. Finally, the mother-to-be throws the tube of Doritos across the room, causing the foetus to fly out of the womb in pursuit of it, and everybody screams.



Figure 8. Still from “Doritos – Ultrasound” advert

Understatement reverses the intention and communicative effects of hyperbole, and thus requires the opposite figurative adjustments in both hearer and speaker. The speaker scales down a given state of affairs, sometimes (but not always) with the aim of reducing the potential emotional impact of the situation. For example, one might use the understatement, “they can drink *a bit* too much” (BNC) to mean that a person regularly drinks too much alcohol. No research to date has investigated its role in advertising but given its close relationship to irony (with some researchers, such as Gibbs 2000, seeing it as a type of irony) one might expect it to contribute to rhetorical effectiveness. An example of the creative use of understatement in an internet marketing video can be found in the advert for *Pepsi Max* shown in Figure 9. This example features a contest between two men (each of whom represents two well-known competing soft drink brands) to build the best arrangement of soft drink cans in a supermarket. The complexity of the arrangements escalates until the man sponsoring the promoted brand builds an impressive castle made of cans, which includes fireworks and a famous rap singer sponsoring the brand. In the light of such a clear victory, he

mitigates his victory by simply stating “we’re good”, which simply means “we’ve finished”. Normally, as we said above, understatement is used to comfort people but this particular example also contains an element of irony, as there is a strong incongruity between the impressive outcome and the understated verbal reference; the intention is to make the Coke’s representative feel worse rather than better.



Figure 9a & 9b. Still from “Pepsi Zero: Snoop Dog” advertisement

3. Variables for video success: Density, coverage, and positioning

Here we explain why we chose to focus on these aspects. The study itself is described in *Section 4* below.

3.1. Density

As we can see from some of these examples, figurative operations often occur in combination. This can be accounted for in two ways. Firstly, the condensed nature of the videos means that a complex message has to be conveyed rapidly in just a few

seconds. Secondly, the multimodal nature of the advertisements themselves allows for several ideas to be expressed simultaneously in different modes of expression.

Given the powerful communicative effects of these different types of figurative operations, one might hypothesize that *figurative density* (that is, the number of overlapping figurative operations) will contribute to the popularity and subsequent viralization of an advertising video. However, because studies to date have only focused on metaphor, we do not yet know what the impact of other figurative operations will be. It could be the case that there is a linear relationship between the density of figurative operations found within the advertisement and its level of popularity. On the other hand, it could be that viewers prefer intermediate amounts of overlapping operations, as low-figurative density advertisements will not awaken sufficient interest, and high-density advertisements may demand too much interpreting effort. This hypothesis stems from Giora et al.'s (2002) findings for metaphor, which led to the formulation of the *Optimal Innovation Hypothesis*. This leads us to our first research question:

Research question 1: Is there a relationship between the number of views that an internet marketing video receives and the number of figurative operations it contains?

H1. Internet videos with an intermediate figurative density are more likely to be widely shared because it makes advertisements evocative while at the same inviting inferencing in recognizable ways. Adverts with none or with a lower figurative density will not engage with viewers, whereas highly figurative adverts will be deemed too cognitively demanding by viewers; in both cases, lower and higher figurative density will hinder the popularization of advertisement videos.

3.2. Type of figurative operation and coverage

If a relationship is found between the density of figurative operations and the popularity of the videos, the next step is to investigate which of the *different figurative operations* have contributed most strongly to its success. Given the above discussion, all are likely candidates, but it may be that some individual operations, or indeed combinations of operations, are more effective than others. For example, research into more traditional forms of advertising has shown that a combination of metaphor and metonymy makes advertisements more appealing and more readily understood (Littlemore, Perez-Sobrino and Houghton, in press). It may also be the case that irony, hyperbole and understatement work well together to improve the rhetorical force of persuasive discourse. Finally, figurative operations that involve explicit contrast (such as metaphor and hyperbole) may also potentially contribute to the success of Internet advertisements.

Previous studies have shown that these two operations often co-occur, with some researchers (e.g. Gibbs 2001) referring to hyperbole as a type of irony. There are a number of factors that may explain the success of this particular type of irony. In all the cases identified in our corpus, the hyperbolic irony had a humorous effect. This derives from the violation Grice's maxim of manner along with a violation of expectations and the presence of a strong contrast between expectation and reality (Colston 2000, Attardo 2001).

The medium of video makes it particularly easy to create rich familiar scenes, which suggest strong sets of expectations, which are then violated for ironic effect. We can see a good example of this in the ultrasound scene that was used in the Doritos

advert discussed above. The eating of Doritos during an ultrasound scan goes against conventional behaviour in such a setting and the fact that the woman is so frustrated with her feckless husband evokes the idea of human frailty, which is a key component of irony under some definitions (e.g. Lucariello 2004). The contrast between what one would expect to happen and what actually happens builds and builds until eventually the baby comes flying out of the womb, which is both unexpected and hyperbolic. The humour evoked in this video gradually changes from the sort of wry humour that one might normally associate with irony to the sort of big ‘belly-laugh’ humour that is more normally associated with slapstick comedy. This leads us to our second research question:

Research question 2: Do certain figurative operations, or combinations of figurative operations, contribute more strongly to the success of an internet marketing video?

H2. Adverts featuring higher degrees of figurative contrast (irony and/or unmarked contrast) are more likely to become popular because they introduce an element of surprise in the audiovisual narration. An additional ingredient that is likely to play a role in viralization is embodiment, because it makes the connection between the advert and the viewer’s lived experiences more straightforward. We thus expect to find a great presence of correlational metaphor among the most viewed videos. Finally, we anticipate that hyperbole and/or understatement might also strengthen the effects of contrasting operations and correlational metaphors.

Given the multimodal nature of internet marketing videos, one needs to consider the *mode of expression* within which the figurative operations appear. All of

the figurative operations listed above can appear in language, images and music and the makers of these videos exploit all of these modes of expression. It would thus be interesting to see whether figurative language was more effective when they occurred within different modes of expression (and if so, of which type), or different combinations of modes of expression (e.g. words and music, images and music, words and images). Pérez Sobrino (2018) has already explored the role played by figurative operations in music. Pérez Sobrino argues that musical versions of metonymy, metaphor, hyperbole, and irony may fulfill different communicative functions. For example, musical metonymy is useful to reinforce the identification and recall of a character of a story (the cat theme in Prokofiev's *Peter and the Wolf* helps listeners to understand when the cat is back in the story just by playing a few notes from the theme). Musical hyperbole, in turn, enhances the emotional power of certain musical pieces (such as the feeling of mourning in Pärt's *Requiem for Benjamin Britten*). Viral marketing videos provide the analyst with an opportunity to investigate the ways in which figurative operations operate and interact within words, music and images to achieve particular communicative effects. This leads us to our third research question:

Research question 3: Do some modes representing or conveying figurative meaning contribute more than others to the success of an internet marketing video?

H3: We expect images to play a predominant role in the popularization of Internet videos. Thus images alone or its combination with words or music are likely to increase the views of Internet adverts.

3.3. Positioning

Finally, the likelihood of an advertisement going viral may also be related to the *positioning* of the figurative operations throughout the advertisement's timeline. Studies of the so-called 'serial positioning effect' (e.g. Broadbent and Broadbent 1981, Ebbinghaus, 1913) which predicts that information presented at the end of a list or process is more readily remembered than information presented in the middle of a list or process, as its positioning renders it more salient. It might therefore be the case that concentrations of figurative density at either the beginning or the end of an advertisement will make it more likely to engage consumers. This leads us to our fourth, and final research question:

Research question 4: Does the positioning of the figurative operations make a difference?

H4: We anticipate that the accumulation of figurative operations towards the beginning or the end of the advertisement might contribute to the creation of a feeling of surprise, thus making the advert more likely to be perceived as innovative and worth viewing.

Figure 10 offers an overview of the main working hypotheses driving this study.

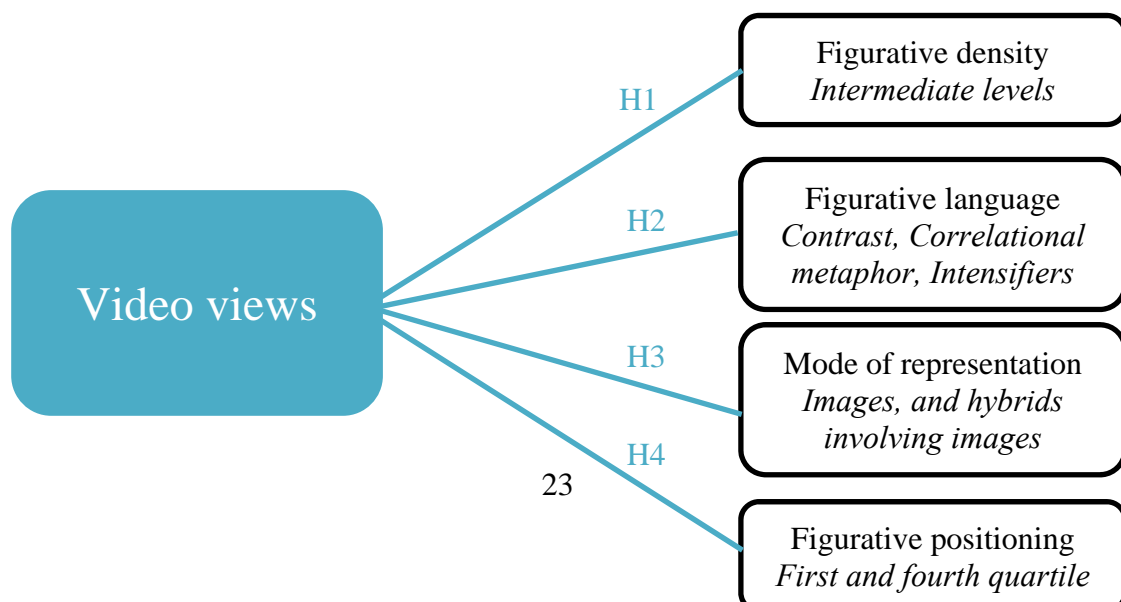


Figure 10. Summary of the working hypotheses of this study

4. Methodology

In order to answer these research questions, we collected a corpus of 35 video advertisements from Youtube with differing levels of popularity and coded them for the different figurative operations outlined above. The language used in all adverts was English and all adverts were released for the first time in the US market.

We calculated for each video, the density of the figurative operations, the different kinds of figurative operation involved, the positioning of the figurative operations, and the number of views that the videos had received. We conducted statistical analyses to investigate which, if any of these variables, served as predictors of the video's success.

4.1 Selection of the videos

A corpus of 35 online brand videos was selected from YouTube. The videos represented a wide range of brands and products. The *number of views* ranged from 1,728 to 115,904,727. Given that our goal was to investigate whether there is a significant relationship between figurative operations and the degree of success of online branded content videos, we took the *number of views* per day and aggregated over time of each video (as per each video's data on YouTube) as a proxy for video success. The rationale for our decision to use the number of views is that it has

ecological validity, as high viewing figures is one of the main aims of the producers of these videos.

4.2 Annotation of the videos

We first transcribed each of the 35 videos and imported both the advertisement and the transcription into Nvivo (<http://www.qsrinternational.com/nvivo/nvivo-products>). We then split them into smaller units of analysis. Our cut-off points were identified at the sentence level in the transcription and when visible changes occurred in the visual content. We also added the exact time span for each unit (in milliseconds) in order to provide a measure of the exact coverage of each unit with respect to the total duration of the advertisement. Each unit was later coded for figurative operations (resemblance metaphor, correlational metaphor, metonymy, hyperbole, understatement, verbal irony, situational irony, dramatic irony, and unmarked contrast) and for the use of modes (verbal, visual, audial, and their hybrids).

The size of the corpus, plus the inherent complexity of audiovisual examples and of our own annotation scheme, meant that it was difficult to code the examples on an individual basis. In order to ensure an acceptable degree of consistency in the identification of the nature and positioning of the figurative operations at play, two researchers jointly coded and annotated each of the 35 advertisements. Controversial cases were therefore resolved in live discussion. A third expert was brought to decide in ambiguous cases until 100% of agreement was reached.

4.3. Variables observed in this study

The next stage of the study involved generating count data for each of the observed variables.

a) *Density (total number of figurative operations in the video):* figurative density was calculated by adding the number of figurative operations occurring in each video. For example, In *Figure 11*, there were five figurative operations (visual irony, visual hyperbole, visual metonymy, verbo-pictorial irony, and verbal contrast).

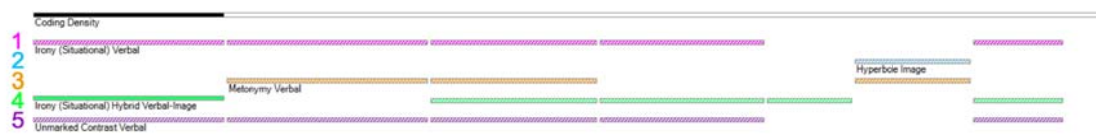


Figure 11. Figurative density in “The man your man could smell like”

b) *Coverage (length of each figurative operation across the video’s timeline):* figurative coverage was retrieved from Nvivo. The software shows the percentage of the timeline covered by each figurative operation. For example, in *Figure 12*, situational verbal irony (in pink) covers two segments of the advertisement of 70.96% and 6.71% each, whereas visual hyperbole (in blue) covers 6.96%.

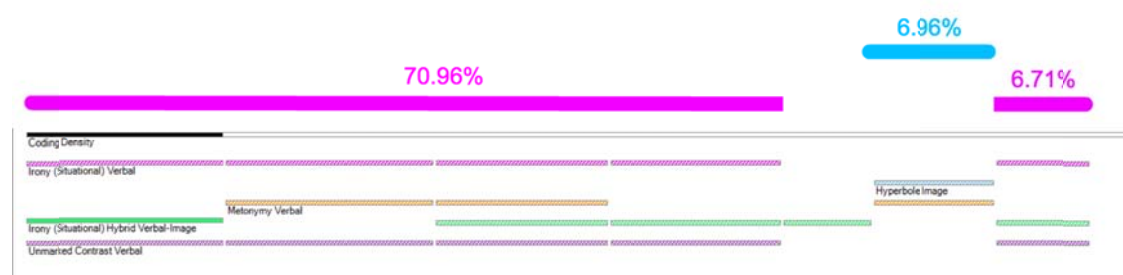


Figure 12. Figurative coverage in “The man your man could smell like”

c) *Positioning:* In order to obtain count data of figurative positioning, each video was split into quartiles and each quartile was subdivided into four sections. We then counted the number of figurative operations that were contained within each of

the four quartiles. We added these together to obtain the number of figurative units per section. For example, in *Figure 13*, the first quartile contains 12 figurative units, the second quartile contains 14, and so on. For the sake of illustration, the number 14 in the second quartile results from adding together 4 units of verbal situational irony (pink), 4 units from verbal metonymy (yellow), 2 units of verbopictorial situational irony (green), and 4 units of unmarked verbal contrast (purple).

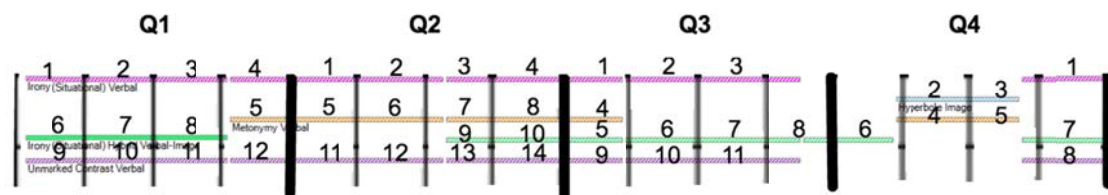


Figure 13. Figurative positioning in “The man your man could smell like”

4.4. Data analysis and statistical procedures

We used the R statistical programming environment (v3.4.0; R Core Team, 2017) for statistical analyses. We were able to fit our data into Poisson linear models because we collected count data in all cases (number of overlapping figurative operations for Research Question 1; percentage of figurative operation coverage for Research Question 2; percentage of mode coverage for Research Question 3; and units of figurative operation for Research Question 4).

We first implemented a *Test for Overdispersion* using the function `dispersiontest` in the package `AER` to (Cameron and Trivedi 1990). Overdispersion can bias both the means and standard errors of parameter estimates and this needs to be controlled for when fitting the regression model (Hilbe 2011). The results suggested evidence of overdispersion (c estimated to be 49836). A common way to cope with

overdispersion in count data is to introduce observation-level random effects in the model, i.e., a unique level of a random effect that models the extra-Poisson variation present in the data (Harrison 2014).

Our Poisson models have a similar structure in all the ensuing sections. Our predictors are the *total number overlapping figurative operations* in Research Question 1, the *coverage of the different types of figurative operations (%)* in Research Question 2 (in isolation and in combination, as we will show), the *coverage of the different modes of representation (%)* in Research Question 3 and the *total number of figurative units* in each of the four quartiles of the advertisement timeline in Research Question 4. These predictors are modeled against the number of views per day, as we understand this to be the clearest index of viralization of a video. We also checked for significance against the aggregated number of views for each of the videos over the time they have been available in Youtube, as an alternative way of measuring the popularity of the videos. Finally, as mentioned above, “advert” was entered as a random effect in all models. We used the packages lme4 (Bates, Maechler, Bolker and Walker 2015) for generalized linear mixed effects models and MuMIn for computing R^2 values for mixed models (following Nakagawa and Schielzeth 2013). All p -values were interpreted by applying likelihood ratio tests (deviance tests) of the model with the effect in question against a null model without the effect in question.

In order to make our study fully reproducible, we have published our data, scripts and the details of the videos collected for this study in a public repository that can be retrieved online:

<https://osf.io/f8knh/>

5. Results and discussion

5.1 *Research Question 1: Is there a relationship between the number of views that an internet marketing video receives and the total number of figurative operations it contains?*

Each advert contained on average 4.6 distinct figurative operations occurring at some point of the video. *Figure 14* shows the mean views per day depending on the total number of figurative operations featured in the advertisement. Except for the dramatic increase of views for 7 figurative operations, the graph shows an almost normal distribution.

Adverts containing seven figurative operations accounted for 33% of the views per day in our corpus, and are placed in the eighth decile of the total views per day, that is, they are in the top 20% of adverts more viewed per day. The next group of most viewed adverts is the one that contains four figurative operations (22% of the recorded views per day). Along with adverts featuring three and five figurative operations, they make up for 56,4%, and they are located in the sixth decile of the data, that is, they gained over 60% of the views per day. There was a statistically reliable main effect of views per day on the number of figurative operations ($\chi^2(1) = 3.989, p = 0.05$)¹. Overall, the mixed effects regression model described 13% of the variation in the number of views per day (adjusted $R^2 = 0.13$).

¹ In lme4 syntax, the following formula was used:
mymodel_figops = glmer(Views_per_day~FigOps_total + (1|Advert), data = dynamic, family = "poisson")

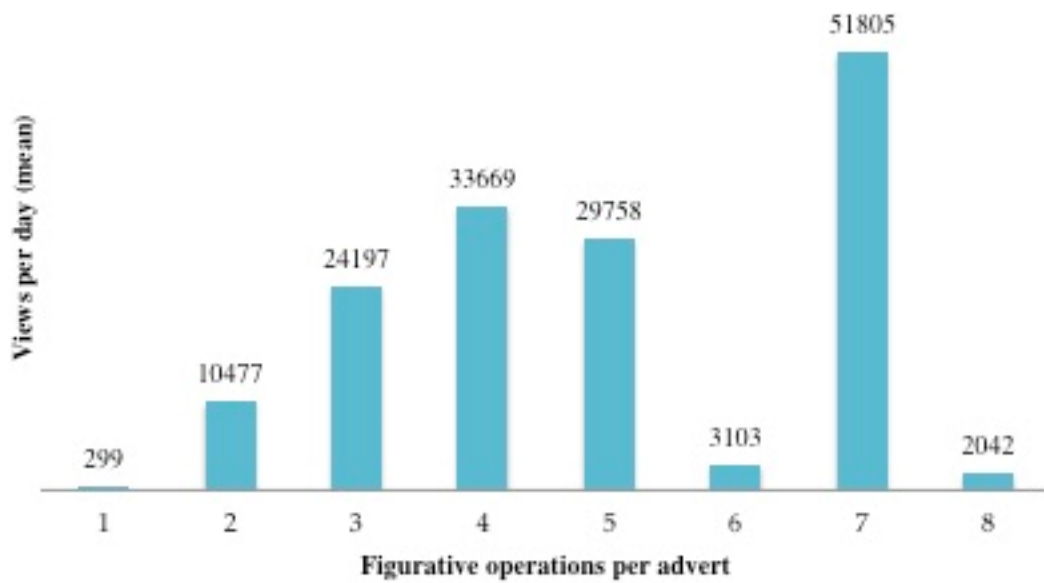


Figure 14. Number of figurative operations featured in the videos and mean number of views scored per day

This initial exploration of the data leads to a partial confirmation of *H1*. We anticipated that intermediate amounts of figurative operation would make adverts more popular, which holds true for adverts containing three, four, and five figurative operations. However, the highly skewed descriptive results show viewers also exhibit a preference towards more complex adverts.

5.2. Do certain figurative operations, or combinations of figurative operations, contribute more strongly to the success of an internet marketing video?

Figure 15 shows the mean percentage of the timeline (coverage) that each figurative operation covered in isolation and also in groups of interest as defined in our research hypotheses. Recall here that the percentages are likely to surpass the 100% threshold as we are looking at overlapping figurative operations in the video timeline

(see *Figure 11*). Metonymy stands out as the most pervasive type of figurative language in our corpus (72%), followed by situational irony (37%), and correlational metaphor and hyperbole (both 30%). In terms of aggregated values, it should be emphasized that both metonymy and metaphor represent the most prominent types of figurative language in video adverts (72% and 58%, respectively), followed by irony (49%). This makes the category consisting of metaphor and metonymy the most representative of our corpus of adverts (130%). Contrasting operations (involving both irony and unmarked contrast) occur only half as often as metaphor and metonymy (76%), and intensifiers (including hyperbole and understatement) are only present in 33% of the corpus.

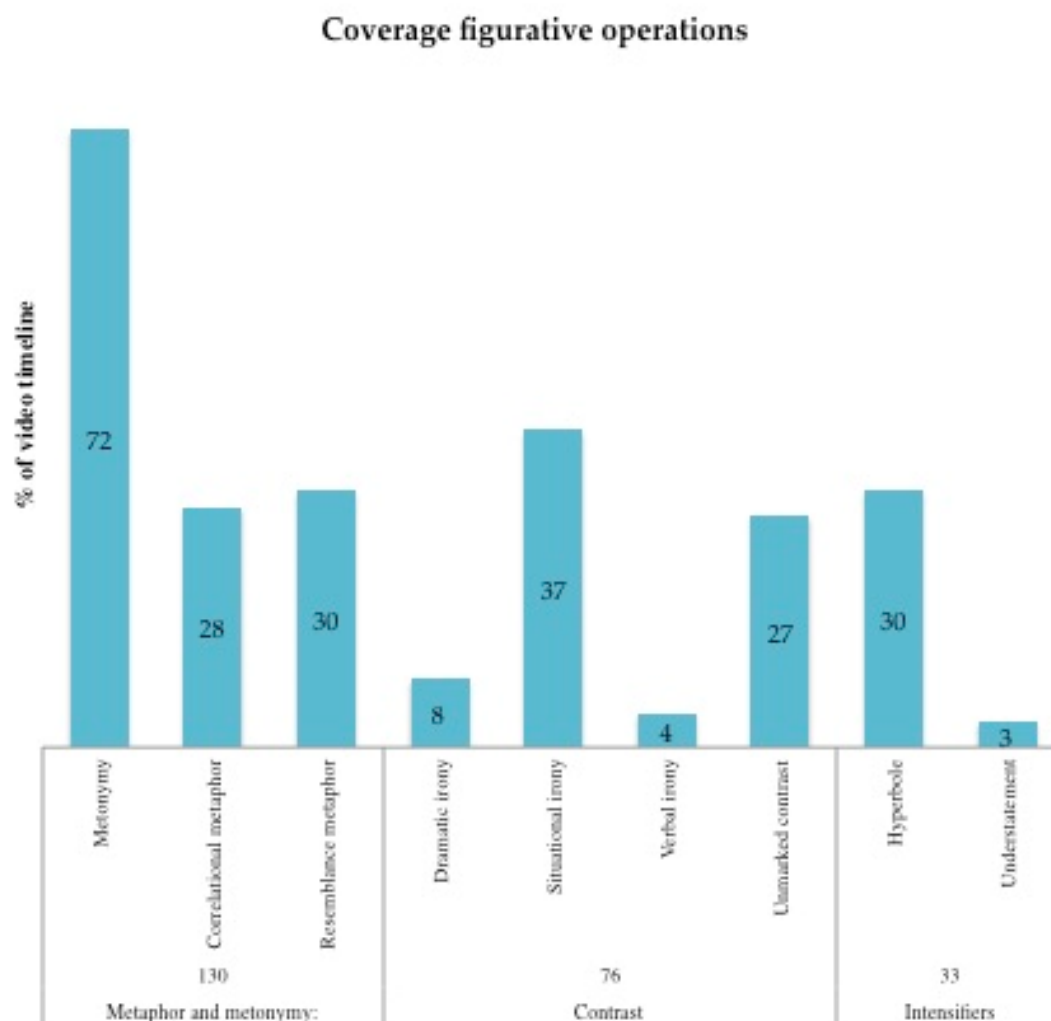


Figure 15. Coverage (%) of each figurative operation of the video timeline – aggregated values per category and individual values per figurative operation

We first looked at the effect of the three major categories (metaphor and metonymy, contrasting operations, and intensifiers and downgraders) on views per day and aggregated views over time. Despite the strong presence of metaphor and metonymy in the corpus, no reliable effect was found for metonymy or metaphor, either in isolation or in combination, on views per day or on the aggregated number of views over time. This means that both popular and unpopular adverts were equally likely to contain a great degree of metaphorical ad/or metonymic figurative language. However, an effect was found for contrasting operations (that is, all three types of

irony plus unmarked contrast; $\chi^2(4) = 11.242, p = 0.02$)² in the popularisation of videos in the Internet, which explained 32% of the variation in the data (adjusted $R^2 = 0.32$). In addition to this, the combination of contrasting operations and intensifiers³ was found to border statistical significance in a reliable manner ($\chi^2(6) = 12.06, p = 0.06$). This suggests that the combination of exaggeration with conflicting scenarios in video adverts might also be related to the increase of views of Internet adverts. However, hyperbole and understatement, either on their own or together under the umbrella term “intensifiers and downgraders”, did not report any significant effect on the number of views.

When breaking down the model to look at the specific contribution of each figurative operation to the number of views, a reliably statistical effect was detected for irony (including dramatic, situational, and verbal)⁴ on the aggregated number of views ($\chi^2(3) = 9.3466, p = 0.03$) and this explained 27% of the variance (adjusted $R^2 = 0.27$). Moreover, a look at dramatic irony on the total number of views yielded similar significant results ($\chi^2(1) = 4.1678, p = 0.04$)⁵. This accounted for 13% of the variance (adjusted $R^2 = 0.13$) and explains why irony predicted such a high number of views.

These results partially confirm *H2*. On the one hand, our findings show that adverts are more often viewed when they feature a great deal of contrast (especially in the form of dramatic irony). In addition to this, figurative operations with an intensifier effect (such as hyperbole) or a mitigating effect (such as understatement) seem to

² In lmer syntax: `mymodel_conint = glmer(Views ~ IronyDramatic + IronySituational + IronyVerbal + UnmarkedContrast + (1|Advert), data = dynamic, family = "poisson")`

³ In lmer syntax: `mymodel_conint = glmer(Views ~ IronyDramatic + IronySituational + IronyVerbal + UnmarkedContrast + Hyperbole + Understatement + (1|Advert), data = dynamic, family = "poisson")`

⁴ In lmer syntax: `mymodel_i = glmer(Views ~ IronyDramatic + IronySituational + IronyVerbal + (1|Advert), data = dynamic, family = "poisson")`

⁵ In lmer syntax: `mymodel_idram = glmer(Views ~ IronyDramatic + (1|Advert), data = dynamic, family = "poisson")`

reinforce this contrasting effect. On the other hand, and contrary to what we expected, correlational metaphor was not found to have an effect on the number of views.

5.3 Do some modes of figurative operations contribute more than others to the success of an internet marketing video?

Figure 16 shows the average coverage of each of the modes of representation of interest in this study, both in their monomodal and hybrid format. Images, first in combination with words and then in isolation, are the most usual modes of representation in Internet advertising videos (79% and 68%, respectively). The spoken word is also present in our data, yet to a lesser extent (48%). By contrast, the potential of music to convey figurative meaning does not seem to have been fully exploited in our corpus: only 17% of the video content conveyed figurative meaning through the music alone. Music was more likely to occur in combination with images (25% of our corpus).

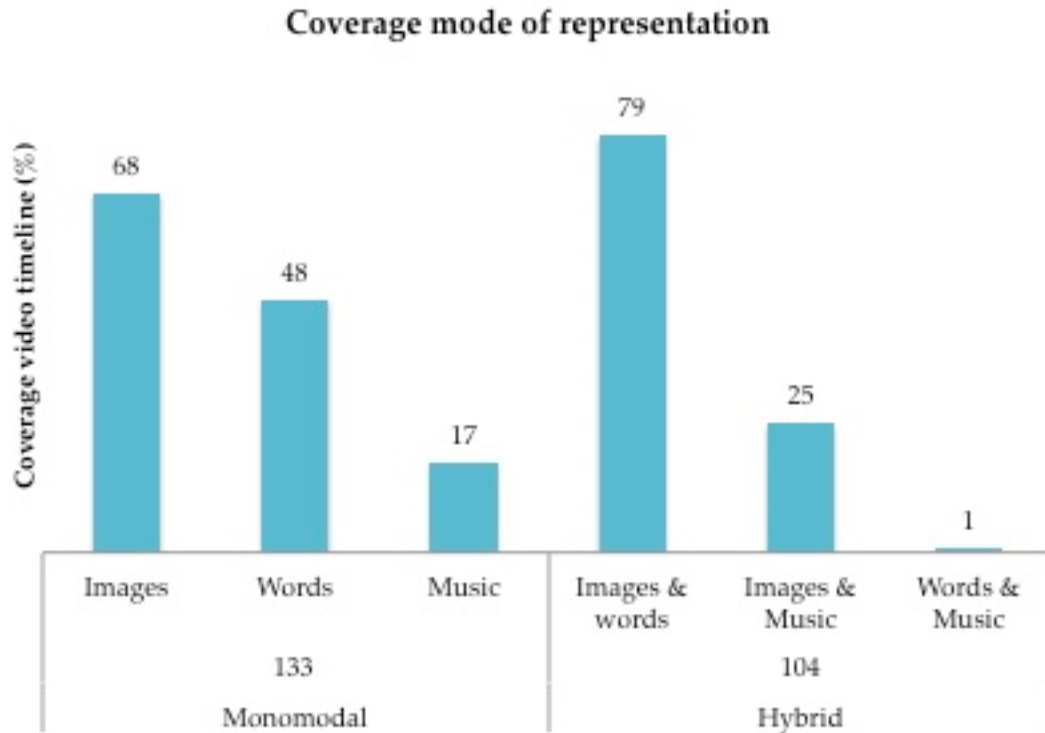


Figure 16. Coverage (%) of each mode of representation of the video timeline – aggregated values per category and individual values per mode of representation

Neither monomodal nor hybrid modes, as overarching categories, had a significant effect on the number of views. A closer look at each of the six possible combinations of mode representation revealed that only the combination of images with words had a reliable significant effect on the number of views per day⁶ ($\chi^2(1) = 366.2$, $p < 0.0001$), which explained 12% of the variance (adjusted $R^2 = 0.12$). This effect is mostly due to the tight connection between popular videos and dramatic irony, which was the only figurative operation featuring words and images that showed a reliable effect on its own ($\chi^2(1) = 4.1724$, $p = 0.04$). This result supports *H3* and gives further credence to the idea that when figurative images occur in combination with

⁶ In lmer syntax:
 mymodel_imawords = glmer(Views_per_day ~ Images_words + (1|Advert), data = dynamic, family = "poisson")

other figurative modes of expression (such as words), they are more likely to engage the viewers.

5.4 Does the positioning of the figurative operations make a difference?

Finally, *Figure 17* shows the average number of figurative units in each of the four quartiles of the advert. The greatest density in terms of figurative units (regardless the type of figurative operations) was concentrated around the third quartile of the timelines (17 figurative units on average), closely followed by the second quartile (15 figurative units on average). Both the beginning and the end of the Internet videos in our corpus presented the lower amount of figurativeness in terms of figurative units (12 figurative units on average in both cases), thereby showing that the adverts gathered in our corpus usually gained complexity (in terms of figurative language) towards the middle of the timeline.

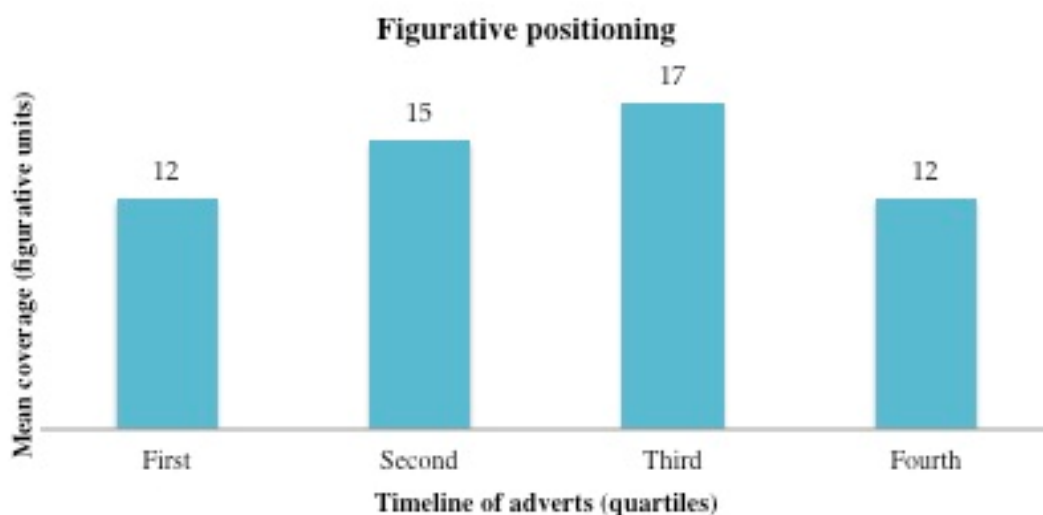


Figure 17. Figurativeness (in units) in each of the four quartiles of the video timeline

In spite of our expectations, no reliable effect was found for figurative positioning on the number of views per video, both in views per day and in aggregated views over time. Figurativeness in the first quartile was found just to border significance⁷ ($\chi^2(1) = 3.1086$, $p = 0.07$) but we cannot fully discard the null hypothesis in the light of these results. This leads to a rejection of $H4$, as the results do not show any relevant effect of the positioning of the figurative operation in the advert on the number of views in our data.

6. General discussion

Given the potential for creativity and the powerful persuasive effect of figurative operations, we conducted a study that aimed to establish whether there was a relationship between the different operations and the popularity of online branded content videos. We were particularly interested in establishing the role played by *figurative density* (i.e. number of co-occurring figurative operations), the *type of the figurative operations* in such videos (metonymy, metaphor, irony, hyperbole and understatement), the *modes of representation* (images, words, music, and their combinations), and the *positioning* of figurative operations within the videos (in the first, second, third, and fourth quartile of the video timeline).

We have seen that the number of figurative operations at work was related to the number of the views. Videos featuring intermediate numbers of overlapping figurative operations (from three to five) were more likely to gain more views. A

⁷ In lmer syntax:
 mymodel_segment1 = glmer(Views ~ Segment1_FigUnits + (1|Advert), data = dynamic, family = "poisson")

tendency towards a preference for complex forms of creativity in videos (featuring up to seven figurative overlapping figurative operations) was also observed. This suggests that the viewers appreciated the intrinsic richness afforded by this particular mode of expression. In terms of figurative operations, the juxtaposition of contrasting scenarios in the audiovisual narration relates closely in a reliable way to the number of views received by viral marketing videos. More specifically, irony (and in particular, dramatic irony) was related to the number of views received by the video. Regarding the use of the modes to represent the advertisement, it was the combination of images with words that led to the highest number of views. More specifically, it was the combination of these two modes in dramatic irony that most contributed to this effect. Finally, we did not find empirical support for the idea that the place on the timeline where these figurative operations occur has a significant effect on the popularity of the videos. *Figure 18* provides an overview of the main findings reported in this study.

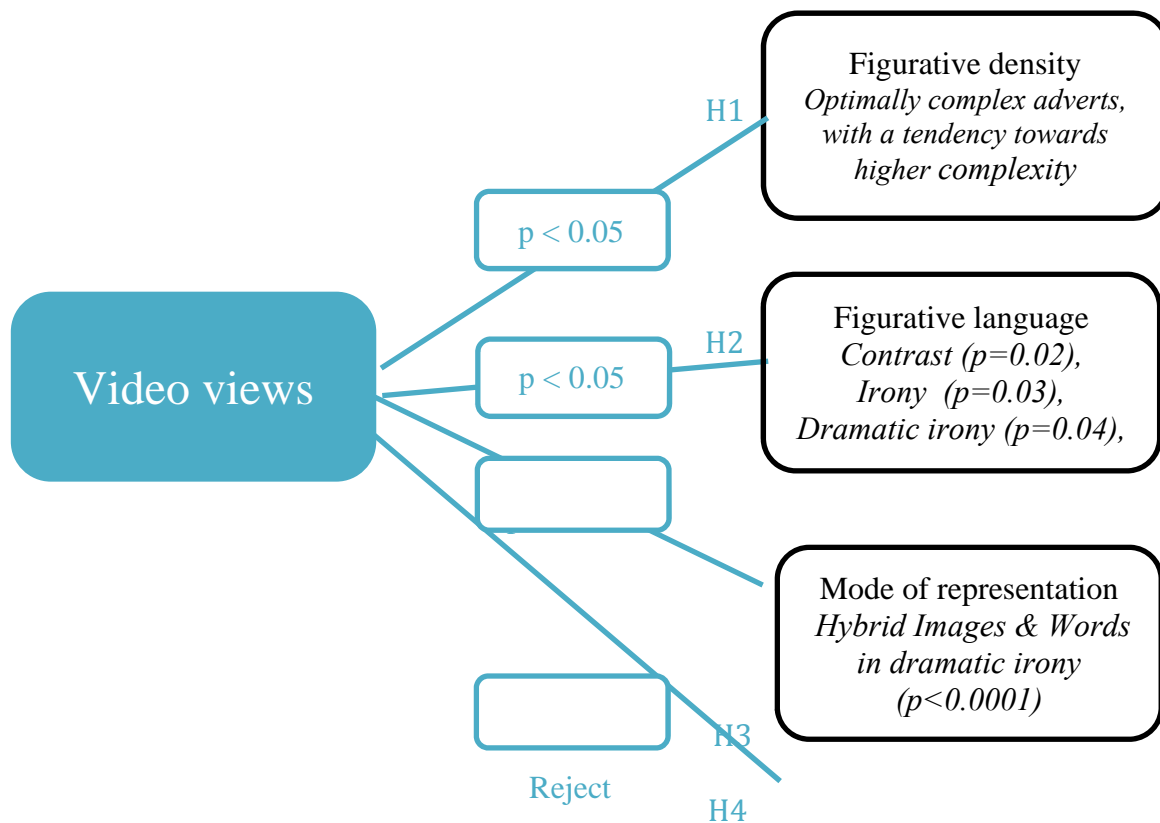


Figure 18. Confirmation/rejection of the research hypotheses in this study

These findings suggest that figurative operations in multimodal use are strong predictors of the success of internet marketing video campaigns, but that not all figurative operations are equally powerful. Moreover, our study shows that it may not always be sufficient to focus simply on metaphor, and that more research effort should be put into examining the role played by other types of figurative communication, such as hyperbole and irony, as these are likely to attract and retain the attention of the viewer as well as performing subtle persuasive functions.

There are number of avenues where potentially useful further research could be conducted in this area. An area in need of development is finding the links between humour studies and the myriad theories dealing with multimodal creativity and figurative language. As argued elsewhere, both humour and figurative operations (especially irony) are built on the same interpretive grounds, and it would be useful to investigate the extent to which they overlap and/or complement each other to build a more integral theory of persuasive communication. In addition to this, we have touched on the role of emotion as a possible mediator between multimedia creativity, figurative operations and video popularity. It would be interesting to investigate the nature of the emotions provoked by these figurative operations, and explore whether the triggering of particular emotions is related to the success of the videos. One of the most popular dimensional models for the study of emotions, which could be used in this research is PAD (Pleasure; Arousal; Dominance). Each of these constitutes a continuum along which emotions are thought to vary. Future studies could usefully pursue this line of

research by interviewing viewers about their emotional responses to the videos using PAD as a framework.

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