

CINEMATIC NARRATIVES OF PRODUCT INTERACTION EXPERIENCES.

METHODS FOR CROSS-MEDIA FERTILISATION OF THE DESIGN PROCESS

Silvia Grimaldi
University of the Arts London
s.grimaldi1@arts.ac.uk

ABSTRACT

This paper outlines the initial phases of a practice-based PhD research project; the paper will outline methods that will be used to analyse the role of objects within cinematic narratives and how these narrative roles could be translated into methods for designing products to enrich the experience of using the products. The starting point for this project is the hypothesis that any interaction between a user and an object will be remembered and interpreted in a user's mind as a form of narrative. This project will therefore try to harness narrative structures and devices from other media to inform the design of products that can specifically cater to these narrative qualities inherent in the way we experience products. This paper outlines methods for opening up the dialogue about these cross-media narrative comparisons, to assist in generating design work which focuses on the narrative qualities of product experience.

Keywords: narrative, product, interaction, experience, film.

INTRODUCTION

This paper will outline the methods that will be used during the first phases of research for a practice-based PhD about the role of narrative in product interactions. This follows an interest that developed through previous research/design work and writing. I became interested in the role of narrative in the creation of emotions, and in particular of product emotions, following a project about the use of surprise in product design. I had embarked on this project

expecting to create a series of surprising objects, and I did this by analysing what surprise is from a psychological point of view, how you can create surprise within a given context and how you can then best apply this concept of surprise to the user's experience of the product. What I was not expecting when embarking on this project was that the process of design and reflection would change the way I looked at objects in several key ways. The first shift was in the design focus; I started looking at how to design the experience of a product as opposed to designing the product itself; this relied heavily on the work of Donald Norman (Norman 2003) as well as Pieter Desmet (Desmet 2002). Looking at the product through the lens of product experience meant that I was able to not only design the physicality of the object but to focus on designing the interaction between the user and the object. In doing this, my theoretical focus also shifted from using surprise as an emotion embedded in the product to using surprise as the emotional climax of a longer narrative user journey.

This realisation came after writing about the project from the point of view of design methods in my thesis, a conference paper (Grimaldi 2006) and eventually a chapter in the book *Design and Emotion Moves* (Grimaldi 2008). The conclusion of this work led me to the hypothesis that increased narrativity of the product experience would increase the emotional engagement with the product and the future recall of the product through memory or word of mouth. This is based on our natural propensity to interpret experiences through a narrative lens, and when remembering or retelling experiences we will further consolidate this narrative

structure (Abbott 2008). Because of this it is important for anyone designing an experience, such as a product experience, to have a strong grasp on those narrative structures that govern the way we interpret events (Abbott 2008). Most people will have a set of expectations about the narrative of their everyday life that may be derived from their own experience, but these expectations are also shaped by the narratives that they come into contact with in a fictional realm. There is therefore a huge opportunity for designers to look at research into the field of narrative to inform the way they design a product.

The focus of the PhD is on creating products that communicate a narrative to the user on their first interaction with the product and on making the design methods used transparent for other designers to adopt and adapt as suited. To narrow the field down the work will be concentrating on domestic products because they tend to embed values about the user (Miller 2008) and because they tend to have a highly emotional charge (Miller 2001). In addition the research will look at a sample of narratives from films that are set in a domestic environment and that feature objects in prominent roles, for example as a hinge point, an actor, a character, etc. and will be finding narrative devices from these films which could be applied to the product experience. I decided to concentrate on the feature film because it is a narrative medium that most people can relate to, it is a finite experience in time (as opposed to reading a novel which may last months) and it often features everyday objects within regular contexts.

From the point of view of design research this project is about the area that Nigel Cross calls design praxiology [SIC] (Cross 2007): research about how designers design, what the design process is and the ways and methods used to create design work. In particular the focus is on the idea generation stage of the design process because this is the stage that is often overlooked or attributed to the designer's instinct or "talent" while a lot of designers and design students tend to or are sometimes forced to approach this in very systematic ways (Design Council 2007). The idea that creativity is not purely innate but can be analysed, described and learned through specific tools is not new and is described at length in psychology literature

(Ward & Finke 1995; Weisberg 1993). Interestingly, when looking at other creative mediums, in particular narrative mediums such as fiction writing or scriptwriting, the creative process is often analysed in detail and treated as a skill which can be learned (McKee 1999). From the point of view of a designer I am interested in methods for generating ideas, especially in those situations in which I don't have a clear path ahead of me in terms of what to design or how to respond to a particular brief or idea. While it is true that a lot of designers will instinctively come up with great ideas, it is also true that a lot of designers have particular structures or methods they use, from brainstorming and roleplaying to research and visualisation (Design Council 2007). From the point of view of a design educator, I am interested in idea generation methods that students can use to expand their repertoire of ideas and think outside of their immediate ideas to more interesting or more complex concepts.

WHY LOOK AT NARRATIVE?

Why look at narrative to inform product experience? Narrative is often used in other areas of design such as branding, advertising and service design for its ability to trigger emotions; yet this idea of creating a story around the user's experience of a design is applied in a different way from the model proposed in this paper. When a story is used in branding it tends to be extrinsic to the product experience: you need to be familiar with the brand beforehand in order to recognise the hints to the larger story within the object, through logos or details of the object's physical construction or functionality. These hints may also be present within the product experience, but the user is normally expected to have prior knowledge of the brand in order to understand the story. In service design a story is often used as a design method: the user experience of a service is represented in terms of a story, but this story is not necessarily embedded or evident in the products themselves (Stickdorn & Schneider 2010).

In the model proposed through this project the story of the interaction should ideally be self-contained: it can reference a cultural context, and this can create a backstory for the user, but the story in terms of sequence of events should be intrinsic in the

interaction with the object itself. This is because the aim is to come up with design methods that could apply to design on a small scale, outside of major commercial brands, to the work of speculative or research designers and designer/makers who cannot benefit from brand recognition, advertising and similar brand-based narratives. Although often it is hard to make the distinction between the qualities that are inherent in the object itself and those that are inherent in the brand, the aim of this project is to look at how narrative can be used outside of the brand narratives that surround objects and to focus on those qualities that are present in the objects themselves.

Narrative is often considered the tool that humans use to understand time (Abbott 2008) and it is intrinsic in our understanding of our own identity and selves (Michele L Crossley 2002). Literature on narrative deals specifically with timing in the form of narrative structure; in particular, narrative theory distinguishes between the story, and the way the story is told. The terminology used for these two elements sometimes varies, but Abbott (Abbott 2008) defines the two aspects as story (which refers to the events or sequence of events) and narrative discourse (which refers to how the story is told). For example, the story of Romeo and Juliet as a sequence of events would be referred to as a story while the way Shakespeare tells of these events in his play constitutes the narrative discourse. Chatman goes further and describes narrative structure as being intrinsic in our understanding of the world; our mind seeks the impression of cause and effect that is given by narrative discourse (Chatman 1978).

Narrative discourse frames the actions of a story in order for them to make sense to the audience or even to the teller.

Film is particularly concerned with causing an emotion in the viewer; as viewers we invest ninety minutes of our time in the cinema to be engrossed into a story, to identify with the characters and to feel their emotions. When a film does not make us feel emotionally invested, we don't think it's a good film. (McKee 1999). This ability to cause emotions because of the presentation of a series of events in a particular medium, but also in a particular narrative discourse, is something that could be applied to products if you

look at the interaction with a product as a time-based experience. Donald Norman refers to time-based interactions with products and how these can influence future take-up through "rosy retrospection" (Norman 2009). Desmet and Hekkert describe the product experience as being temporal and dependent on the user's disposition (Peter Desmet & Hekkert 2007) and both these qualities could be informed by the analysis of other mediums that are more specifically time-based and that use the idea of timing to shape the viewer's emotions.

Emotional reactions to products only make sense within a wider context which includes pre-existing knowledge, be that cultural knowledge: knowledge about archetypes or affordances, about materials, conventions, etc. or personal knowledge: knowledge derived from a person's previous experience. How and when within the product experience this knowledge is referenced or hinted at will shape the narrative discourse of that experience in terms of memory but also in terms of recounting the interaction to someone else, something which is crucial when we think of the role of word of mouth or product reviews within the marketing of a product.

The aim of this phase of the project is to create a framework, in the form of a matrix, for comparing a product experience to a cinematic viewing experience, in order to tease out which narrative structures and devices could be of use to product designers during the process of designing for the product interaction experience. This would allow designers to view the product interaction experience as a narrative and to take advantage of the literature on narrative within the context of film in order to inform the design of objects. In addition, within an emotional design context, narrative can be analysed from the point of view of the creation of emotions in a cinematic audience, and then this analysis could be applied to the creation of emotions within a product interaction experience.

The next chapter will describe the methods that will be used to compare film narratives with product experience narratives with the aim to create a tool that will be used in a further phase of the project to generate and test design work.

METHODS FOR ANALYSIS

This chapter will outline the methods that will be used throughout the initial phase of PhD research; the aim of this phase is to create a framework for cross-media comparisons which can enrich design practice through adopting narrative theory from other media. Initially the films will be analysed from the point of view of objects and narrative structures. This analysis will be summarised in a matrix of objects and narrative types, which will then inform the analysis of user-object interactions. The user-object interactions will be looked at through a series of tests and experiments with participants and then the matrix will be revised based on the reflection on this comparison. The aim of this phase is to prepare a matrix which can be applied to the design process.

The first step in the participant research will be a short online questionnaire, aimed at getting about one hundred responses. This is designed with a double aim: to select a number of objects which may best lend themselves to this study and to select a number of participants who may be willing or predisposed towards talking about their interactions with objects. The questionnaire will have two open questions, asking the user for a list of the five domestic objects that first come to mind and then asking for a list of three objects that they most enjoy using, followed by space in which to write why they find each interaction enjoyable. The question about enjoyment with objects is mainly aimed at eliciting a descriptive response in the following motivation section and its primary aim is to select participants that would be willing to engage with the study in a narrative way. Finally the participants will be asked whether they would be willing to participate in further research for this project. The objects that will be mentioned in the two categories will be selected for further investigation, and the participants who have engaged the most with the “why” aspects of the second question will be asked to participate in further studies.

Because of the nature of the project, as a practice-based research project that aims to create methods to generate design work, it is more important to find participants that would be willing to talk at length about their experiences with objects as opposed to finding a sample that reflects the general population or

a particular demographic group. The aim of the participant research is to obtain six in-depth qualitative interviews in the form of a story as opposed to studying reactions that can be generalised to a particular population. This follows the example of Dunne and Raby's participant selection methods in *Hertzian Tales*, in which they describe a similar approach to selecting participants (Dunne 2008). Because of this the questionnaire will be posted on internet boards that are followed by people with an interest in objects, but not necessarily experts, designers or design students, such as the Freecycle network, DIY and Car Boot Sale online message boards.

Following the questionnaire there will be a process of matching and selection of films based on several criteria: the films should be set in a domestic setting, so as to mirror the setting for the objects that will then be designed; the films should be relatively contemporary, from the 1990's onward, so as to be set in a time period that reflects our own in terms of objects featured and in terms of resonance of narrative style and storylines with a contemporary audience. The final criteria is that the objects identified in the questionnaire should feature in a prominent role in the films. The role of the object could be as a hinge point, an event that triggers a change in the direction of the story, for example the alarm clock in *Groundhog Day* (Ramis 1993); as a character, for example the tape recorder in *Twin Peaks*, which Dale Cooper talks to and calls Diane (Anon 1990); as an agent, something that affects the storyline, for example the draughtsman's drawings in *The Draughtman's Contract* (Greenaway 1983); or even as a macguffin, a real or imagined object that fulfils a desire or aim in the narrative, for example the case in *Pulp Fiction* (Tarantino 1994).

Several films will be selected for each object through searching metadata databases, which contain script and subtitle information which mention objects with prominent roles, and by consulting with a group of film experts including a film archivist and several film professors. These films will then be analysed in terms of the studied objects, paying attention that there is a variety of genres represented for each object so as to allow for a variety of narrative devices and structures.

For example, the role of the LP record in *Little Voice* (Herman 1998) is as a character, which stands in for LV's father, with all the emotional qualities associated to an idealised father figure. In *High Fidelity* (Frears 2000) the LPs play a role of documentation of an emotional history as well as physical trace of an emotional burden; they stand in for the protagonist's back story or baggage. In *Shaun of the Dead* (Wright 2004) the LP takes on the role of comedic weapon; the casual choice of the LP as a record is the hinge point to a cathartic moment in which the protagonists shed their embarrassing past and the protagonists turn from passive to active in fighting the zombies.

The analysis of the films will concentrate on the role of the object within the narrative structure of the film story and on the interaction between the characters and the objects in the film. Keeping in mind that objects are never casually placed in a film and they always carry meaning, from a semantic and from an emotional point of view, the analysis will focus on three different aspects: the meaning of the object within the story; the physical interaction between the character and the object and the narrative role of the object within the scene and within the film. This will then form the basis of a matrix which will visually compare the object and film characteristics and outline broad narrative roles for the objects.

Discussion forums on the Internet Movie Database will then be used to verify whether the narrative roles assigned to the objects can be verified by a broader group of people interested in film.

The matrix will be constructed based on a narrative theory framework, so that object interactions as represented in the films can easily slot into categories of meaning, physical interaction and narrative role. Filling the matrix up in this way will help to identify areas of overlap or commonality between different objects and different films and flag up areas that are not touched or under-represented. Because the overall project is interested in gathering qualitative research to inform a practice-based project the aim of the research is not to create a comprehensive review of every film in a given category, but to create a structure that could be added to or subtracted from and that would aid in the creation of design methods.

The objects will then be tested in participant experiments to create a comparison with the object interactions in the film, seen from a narrative point of view, and participant object interactions, also seen from a narrative point of view. The project is interested in the experience of interacting with an object, but also in how the user interprets that experience in the form of a story through memory and through recounting the story. Because of this the participant research will be based around oral history methods to allow for the user's unique story of the interaction to show through. This will be contrasted with a more objective outsider's view of the object interaction.

The experiments will be set out in the following way: each participant will be asked to test the full range of objects in their own domestic environment and the participant will be filmed interacting with the objects in a non-obtrusive way. The participants will then be interviewed and asked to describe their interaction with the objects. The interview will be audio-recorded. Ideally it will then be possible to contrast the filmed interaction with the recounting of the interaction and to identify narrative strands in both sets of data. The narrative strands would then be analysed in the same way as the films and the information would be added to the matrix.

The aim is that this matrix will then provide a platform for discussing object interactions as cinematic narratives and this will conclude the first phase of the research, which this paper is concerned with. The following research phase will be the most practice-based and the matrix will then be used as a tool for generating design concepts, which will be selected, developed and tested in a similar way to the everyday objects. The final phase will be concerned with reflection on the process and revising the matrix into a series of design methods which could be apparent and usable by other designers or design students. This method will provide a platform for cross fertilisation between narrative theory and practice and design praxiology and it will hopefully enrich the discourse about how other media and theory can directly influence the design process.

FUTURE DEVELOPMENTS

This paper has outlined the role of narrative in the construction of personal identities and memory, it has then described methods that will be used in future stages of the research to cross-fertilise the design process with elements from film narratives.

The aim and hope of this phase of the project is that the analytical method described above will open up debate on the role of narrative in product experience and will make designers more aware of designing for this narrative experience. The following phase of the project will be practice-based and will give the designer a chance to apply this framework to the design process and then reflect upon this and create guidelines or design methods that could be adopted by other designers. The matrix described in the Methods for Analysis chapter will be used to create design work in response to the roles that the studied objects take in a varied sample of films. This work will then be tested with the same participants and the same methods that were used to test the everyday objects: the participants will be asked to interact with the designed object while on camera, and then they will be interviewed in an audio-recorded interview about their product interaction experience. The video of the interaction and the audio interview will be analysed in narrative terms according to the same elements of narrative theory that were used to analyse the films, looking at the way the story is told, its structure and the narrative role that the object played in the story.

The aim of this further testing is to determine whether the narrative methods used to design the experience have influenced the way the participants interpret the experience from a narrative point of view, whether this has facilitated or created particular emotions or feelings in the user and whether the embedded narrative is apparent in the user's experience. Based on this the design methods will be analysed and if necessary the design and testing process will be reiterated. The conclusion of the project would be a book and an exhibition outlining both the designs and the methods used to generate the designs, in an attempt to make the design process more transparent for other designers or for design students.

There are several issues with this research that need to be pointed out and that will probably not be resolved until after the research has been carried out. One of the main questions is whether the single interaction with an object can be comparable to a cinematic viewing experience in terms of depth of involvement, from the point of view of emotional involvement and of physical involvement: in the cinema we are isolated from all other stimuli by having dim lights, a large projected image, surround sound, etc. When we interact with a physical object however we may be daydreaming or thinking about something else, chatting to someone or just generally not paying attention. This may reveal itself to be a problem, but it also may not be as relevant because we can take into account the fact that the depth of involvement in the two media will be different, and we can then design for a product interaction experience that may be overseen by a distracted user but that may be picked up by someone who may be in the right frame of mind. In addition, film-based interactions between character and prop may not reveal themselves to be similar to real-world interactions between user and object, simply because the actor is working to a script and filming over a number of takes.

The next open question is about context. An object may work as a narrative device in a film, but this may not translate outside of the film because the object would be taken out of its narrative context. For example the glove that Marlon Brando fondles in Kazan's famous scene in *On the Waterfront* (Kazan 1954) becomes a very sensual object within the scene itself, but this would not necessarily hold the same meaning if it was taken out of the context of the film. However, no object is devoid of cultural context, be that about the affordances of the object or the semiotic meaning of it, the recognition of archetypes or the recognition of the feel of a material. If this context could be harnessed to create part of the narrative this may create a richer narrative experience for the user.

REFERENCES

- Abbott, H.P., 2008. *The Cambridge introduction to narrative*, Cambridge University Press.
- Design Council, 2007. *Eleven lessons: managing design in eleven global companies*. Desk research report, Design Council.
- Anon, 1990. *Twin Peaks*,

- Chatman, S.B., 1978. *Story and Discourse: Narrative Structure in Fiction and Film*, Ithaca; London: Cornell University Press.
- Cross, N., 2007. *Designerly Ways of Knowing*, Birkhäuser GmbH.
- Crossley, M.L., 2002. *Introducing Narrative Psychology. In Narrative, Memory and Life Transitions*. University of Huddersfield, Huddersfield, pp. 1–13.
- Damasio, A., 2000. *The Feeling Of What Happens: Body, Emotion and the Making of Consciousness* New edition., Vintage.
- Desmet, Peter & Hekkert, P., 2007. *Framework of Product Experience*. *International Journal of Design*, 1(1), pp.57-66.
- Desmet, Pieter, 2002. *Designing emotions*, BPR Publishers.
- Dunne, A., 2008. *Hertzian Tales: Electronic Products, Aesthetic Experience, and Critical Design*, MIT Press.
- Frears, S., 2000. *High Fidelity*,
- Greenaway, P., 1983. *The Draughtsman's Contract*,
- Grimaldi, S., 2006. *The Ta-Da Series - Presentation of a methodology and its use in generating a series of surprising designs*. In 5th International Design and Emotion Conference. Chalmers University of Technology, Goteborg Sweden. Available at: http://arts.academia.edu/SilviaGrimaldi/Papers/543797/The_Ta-Da_Series_-_Presentation_of_a_methodology_and_its_use_in_generating_a_series_of_surprising_designs [Accessed January 30, 2012].
- Grimaldi, S., 2008. *The Ta-Da Series – A Technique for Generating Surprising Designs Based on Opposites and Gut Reactions*. In P. M. A. Desmet & J. van E. Karllsson, eds. *Design and Emotion Moves*. Cambridge Scholars Publishing.
- Herman, M., 1998. *Little Voice*,
- Kazan, E., 1954. *On the Waterfront*,
- McKee, R., 1999. *Story: Substance, Structure, Style and the Principles of Screenwriting*, Methuen Publishing Ltd.
- Miller, D., 2001. *Home possessions: material culture behind closed doors*, Berg.
- Miller, D., 2008. *The Comfort of Things* 1st ed., Polity Press.
- Norman, D.A., 2009. *Memory is more important than actuality. interactions*, volume 16(issue 2), pp. pages 24–26.
- Norman, D.A., 2003. *Emotional Design: Why We Love (or Hate) Everyday Things* 1st ed., Basic Books.
- Ramis, H., 1993. *Groundhog Day*,
- Stickdorn, M. & Schneider, J., 2010. *This Is Service Design Thinking: Basics, Tools, Cases*, Amsterdam: BIS.
- Tarantino, Q., 1994. *Pulp Fiction*,
- Ward, T.B. & Finke, R.A., 1995. *Creativity And The Mind* 1st ed., Basic Books.
- Weisberg, R.W., 1993. *Creativity: Beyond the Myth of Genius* 2nd ed., W H Freeman & Co (Sd).
- Wright, E., 2004. *Shaun of the Dead*,