

STORY OF USE: ANALYSIS OF FILM NARRATIVES TO INFORM THE DESIGN OF OBJECT INTERACTIONS

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ABSTRACT

Not only is using a product an experience, it is an interaction and it is narrative in nature. This work in progress paper describes the narrative theory background for this statement, in particular schemata theory and the concepts of agency, tellability and narrativity, then describes methods that are being used in the project to analyse film narratives and apply these to the design of tellable physical products.

INTRODUCTION

The aim of this project is to analyse an interaction with an object as a narrative, and to analyse the narrative structures and effects of other narrative mediums, for the scope of this project limited to examples from fiction film, and create methods that can apply findings from this comparison to generate designed objects which “direct” *tellable* product experiences.

The premise is that not only is using an object (any object) an experience, it is an interaction and it is narrative in nature. The theoretical framework comes at the intersection of two lines of thinking that can be looked at in parallel – on the one hand there has been research around the idea that experiences are described and remembered as a story (Bruner, 1991; Dewey, 2005; Forlizzi, 1997; Hassenzahl, 2010), and on the other hand the field of narrative theory has been lending itself to wider interpretations of what narrative is, that are less tied to a specific medium, the literary text, and are open to accepting other mediums but also real life experiences, or the on-the-spot or a posteriori recounting of experience, as having narrative qualities (Abbott, 2008; Bal, 2002; Young and Saver, 2001).

The project develops this premise by cross-fertilising the design of objects, in particular non-digital domestic

objects, with narrative techniques, patterns and roles derived from the analysis of specific film examples. In other words, someone using an object will experience a sequence of events (or micro-events) related to this use; in the case of a kettle the user will approach the kettle and see it, then fill it with water, place it on its base, turn it on, wait for it to boil, possibly notice the noise of the boiling water or the steam coming out of the kettle, then the kettle will turn itself off (or is turned off) and the user pours the boiling water and places the kettle back on its base. By manipulating or “directing” what these micro-events are, how and when they happen and what they communicate or represent to the user, and by creating consciously structured sequences of micro-events within this “single-use” experience of a kettle either from the point of view of physical interaction or from the point of view of emotional or cognitive responses, then the designer may be able to increase the *tellability* of this experience. *Tellability* refers to the noteworthiness of the events being related; high *tellability* in an event will then lead to high *narrativity* of the related story (Baroni, 2013).

LITERATURE AND THEORY

Looking at physical domestic products as creating or prompting narratives when they are interacted with suggests an exploration of a few different theoretical fields; material culture anthropology looks at the significance of domestic products in the construction of identity (Miller, 2008); the literature on experience psychology explores how experiences are assimilated and evaluated over time (Bruner, 1991; Hassenzahl, 2010); ideas explored by interaction design about the way people interact with objects, using stories, performances or trajectories (Gaver et al., 2003; Laurel, 2004; Löwgren, 2009; Benford et al., 2009), though the focus tends to be on digital objects; as well as studies of narrative theory which can provide insights on narrative construction and interpretation (Abbott, 2008; Bal, 2002; Bordwell, 1985). Because of the limits of the conference paper format I will focus on those areas of narrative theory that may prove useful in the design process and in structuring design briefs.

Narrative theory is used as a framework for this study because of the relevance of narrative in the forming of identity (Sacks, 1998) as well as the idea that our experience of the world is mediated through a narrative understanding (Bruner, 1991; Young and Saver, 2001), our interpretation of reality through memory or recall is also guided by narrative principles (Abbott, 2008; Bordwell, 1985; Young and Saver, 2001) and our ability to empathise is greater when information is presented in narrative form (Danko, 2006; Wright and McCarthy, 2008). Everyone has probably told a story about an interaction with an object, for example a story about using a particularly “stupid” automatic cash register at the supermarket; these stories become part of how the object is experienced, understood and remembered.

Often, stories told of objects have the effect of humanising these and giving them anthropomorphic characteristics. So the automatic cash register at the supermarket may be “stupid” and “slow”. In this way the story is often retold or recalled as an interaction between two beings which both possess some form of *agency* or will; according to Gell (1998) artefacts (which he groups under the term art) possess agency when they allow things to happen “in their vicinity”, in other words when they are perceived as having a will. Bal (2002) goes one step further and moves the focus of an object’s interpretation from the maker (artist’s intention) to the object (agency of the object) and on to the viewer (or user) through the concept of *narrativity*: this emphasises the relationship between the viewer and the object, seen as a story of viewing and interpreting the object, not predetermined but only fostered by the designer’s intention. This cognitive activity is narrative because it happens through time: “Narrativity is here acknowledged as indispensable, not because all pictures tell a story in the ordinary sense of the word, but because the experience of viewing pictures is itself imbued with process.” (Bal, 2002, p281). This leads on to the hypothesis that objects perceived as possessing *agency* may have more potential for *narrativity*, and to the idea that a narrative is created in the user’s mind when interacting with an object, and it is central to the way the user interprets the object.

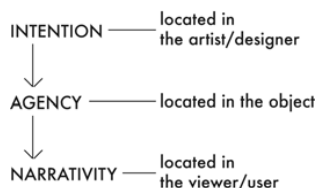


Figure 1 - Conceptual model of three levels of interpretation – Adapted from Bal (2002)

Out of this conceptual model (Figure 1) it is interesting to draw parallels with constructivist conceptions of narrative; In particular Bordwell (1985) talks about the activity of the film viewer as being one of story construction: “the viewer’s comprehension of a story is the principle aim of narration” (p30) and the main

activity of the (narrative fiction) film viewer is that of creating hypothesis about the story and then validating or disproving these hypothesis as the film develops. This is then explained by Bordwell in terms of *schemata theory*: we have a set of learned notions about how the narrative will develop that come from every day experience (including the experience of watching films).

According to Bordwell (1985), we have four types of schemata at work when viewing a film. *Prototype schemata* allow us to identify agents such as characters, props and locales as contributing something to the story, for example a character with a gun will be perceived in a certain way. *Template schemata* represent abstracted narrative structures that allow the viewer to slot information into the right sequence when reconstructing a story. So a story that is told in an order that is different from chronological can be understood in the correct chronology because we have these template schematas to assist us in “filing” the information into the correct place. Incidentally, stories which are told in a way that is close to these template schematas are easier to remember, and, regardless of what order the story was told in the original film, viewers will make the story conform more to the prototype schemata when retelling or recalling. *Procedural schemata* have to do with the viewer’s understanding of the story; these are the relationships between the parts of the story that don’t necessarily relate logically but might be perceived as related because they are typical of a particular genre, or because they are necessary to the construction of an elegant story. *Stylistic schemata* have to do with the style elements of the film medium, such as camera shots, lighting, etc. Schemata aid story recollection and allow viewers to be surprised by a story event which does not conform to the hypothesis they had made, and allow the viewer’s hypothesis to be validated by a story event that does follow the viewer’s expectations.

In particular prototype and template schemata could be applied to the design of objects; prototype schemata play on semiotic understanding and classification of clues, so in an interaction with an object this could be visual clues about the form of the object which makes the user construct an understanding of that object based on prior knowledge or experience, or clues from the way the object behaves which might prompt the user to assign it a personality. Template schemata relate to the way we expect the experience with the object to develop over time, validating or invalidating hypothesis to create patterns of surprise or predictability, and this could have some interesting applications especially to the design of objects which vary their behaviour, or when we can ascribe some form of cause and effect relationship to events that happen in a sequence. So if our broken laptop turned on when the cover was lifted “just so” we tend to ascribe a general cause and effect rule and to repeat the gesture. But also if micro-events within an interaction happen over time in a way similar to a typical story structure it might aid or foster the *narrativity* of the experience and the *tellability* of the

object. So the result of applying these schemata to designing objects might be that the object actively encourages an increase in the gusto that someone might have in retelling the story of their interaction, thus fostering word of mouth and increased recall.

DATA AND METHODS

In light of the theoretical model outlined above the project analyses film examples in which the objects selected for redesign appear in a narrative role and takes elements of how the story is told in the film to apply these to the design of the object. The first step has been to select a number of domestic objects through an online questionnaire and to select a number of films in which these objects appear. The films were selected through the Internet Movie Database Forum, asking the forum participants to identify scenes in which the selected objects play a significant role because they resonated and were memorable, as opposed to films in which the objects simply appeared. Suggestions were then divided by object and for each object four or five films were selected, taking care to have variation in genres for each object and in roles these objects take on.

This project is being piloted with the kettle. The films selected for this pilot were *Vera Drake* (Leigh, 2004) a historical drama in which the kettle helps establish the character of Vera as a caring individual, and helps to frame her activity of providing illegal abortions as a caring act; *Wristcutters: A Love Story* (Dukic, 2007) a comedy in which the kettle's whistle is used as a device to cut from one scene to another; *A Tale of Two Sisters* (Kim, 2003) a psychological horror in which a boiling kettle is used as a weapon; and *Secretary* (Shainberg, 2002) a comedy/drama/romance in which the kettle is used to establish a domestic calm scene but in that same scene is then used as a masochist's tool.



Figure 2 - Scene from *Secretary* (Shainberg, 2002)

The film scenes were analysed according to McKee's guidelines (1999) focussing on turning points, timing of beats of action, conflicts and goals, but adding some detail about the role of the object in the scene, which relates to the idea of the object having *agency*.

The film examples will be used in different ways as templates or starting points for the design of the object experiences, for example by incorporating narrative devices such as shifts of roles or meaning, timing structures and symbolic uses of objects. In particular the scene described above has led to several briefs; some

examples are to design a kettle which performs a role reversal, from reassuring to threatening, and to design a kettle with a similar time structure of micro-events to the beats of the scene. Other briefs developed so far have to do with the kettle as establishing a caring role (based on *Vera Drake*); comparing different structures and timing of the film sequences, which can be used to organise micro-events within the kettle use; looking at the whistling of the kettle as a film trope or device, such as in *Wristcutters*; and a cross-film brief about the different roles the kettle takes on in different films.

In parallel to the film analysis, participants were recruited to analyse the experience of use of a kettle. For this pilot a convenience sample was used, asking students to participate; after the pilot and for the testing of the objects the participants will be recruited from the respondents to the initial questionnaire to select the objects. The participants were asked to film themselves while using their own kettles, and were then interviewed about this experience. The interview was conducted in two phases; first the participant was asked to describe how they use a kettle, in what circumstances and what they do while they wait for the water to boil. Then the video of the experience was shown and the interviewer asked the participant to "talk me through the video". Interestingly the participants were a lot more open about describing their quirks of use while watching the video: one participant described how she inspects the kettle for limescale before each use, while another talked about the fact that she doesn't "like to let hot water wait, it defeats the point in my opinion".

The final step in the participant involvement was to create a storyboard of their use of the kettle, and to answer a few final questions about whether they enjoyed the storyboard exercise. Because the participants were not necessarily familiar with drawing or with storyboard techniques they were provided with cut outs of faces, bodies, hands and kettles at different sizes and scales which they could collage into the storyboard. An example is shown in Figure 3.



Figure 3 - sample storyboard of kettle use

The data coming from the participant interviews, analysed in terms of sequences of micro-events but also quirks of use, will be useful in conjunction with the briefs coming from the film analysis to formulate new designs, and narrative theory elements such as schemata will be used to frame how micro-events are experienced by the user in time. The participant research will also test the narrativity of the experience of the kettle: once the objects are redesigned these will be tested in the same way as the initial objects were tested with the participants. The final aim is to assess whether the project led to objects with an increased *tellability*, which therefore increased the *narrativity* of the experience.

RESULTS AND DISCUSSION

Though the study is in progress, the work done so far shows the potential of applying elements from narrative theory as well as practical examples of story construction from film to the design of objects as *tellable* interaction experiences, and the parallel analysis of the role of the objects in films (which tends to be more extreme) and the object use experiences provides a comparison platform to start applying these ideas into designed objects. The idea of schemata could be useful to designers in terms of building a recognisable story structure, and the concepts of *agency* and *narrativity* could aid in creating objects that are more *tellable*, fostering or directing events that when retold lead to stories with increased *narrativity*.

The study of narrative theory could therefore lead to a better understanding of how designers can incorporate narrative elements such as logical connections between events, template schemata or agency and perceived agency of objects into the design of objects. This is not in contrast to other approaches such as looking at the creation of meaning in objects or the emotional effects of a design, but it is instead intended as an additional narrative dimension that designers can consider, in addition to those already widely used such as scenarios.

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