The dilemma of the hedonic – Appreciated, but hard to justify

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ABSTRACT

With the experiential turn in Human–Computer Interaction (HCI), academics and practitioners broaden their focus from mere task-fulfillment (i.e., the pragmatic) to a holistic view, encompassing universal human needs such as relatedness or popularity (i.e., the hedonic). Accordingly, many theoretical models of User Experience (UX) acknowledge the hedonic as an important aspect of a product's appeal. In choice situations, however, people (i.e., users, consumers) overemphasize the pragmatic, but fail to acknowledge the hedonic. The present research explores the reasons for this phenomenon. We suggest that people attend to the *justifiability* of hedonic and pragmatic attributes rather than to their impact on experience. In other words, they choose what is easy to justify and not what they enjoy the most. Since providing justifications is easier for pragmatic than hedonic attributes, people arrive at a primarily pragmatic choice, even if they would feel better with the hedonic. We explored this assumption, called the *Hedonic Dilemma*, in four empirical studies. Study 1 ($N = 118$) revealed a positive correlation between the need for justification and pragmatic choice. Study 2 ($N = 125$) explored affective consequences and justifications provided for hedonic and pragmatic choices. We further explored two different ways to reduce the *Hedonic Dilemma*. Study 3 ($N = 178$) enhanced the justifiability of hedonic choice through product information which suggested hedonic attributes as legitimate. In consequence, hedonic choice increased. Study 4 ($N = 133$) manipulated the need for justification through framing the choice context. A significant positive effect of a "low need for justification" frame on purchase rates occurred for a hedonic but not for a pragmatic product. Our research has a number of implications, reaching from how to elicit requirements to general strategic considerations when designing (for) experiences.

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1. Introduction

For more than a decade, the "experiential turn" (see Hassenzahl and Tractinsky (2006) for an overview) in Human–Computer Interaction (HCI) acknowledges aspects beyond the task-oriented, such as pleasure (Jordan, 1998), fun (Draper, 1999), the hedonic (Hassenzahl et al., 2000), beauty (Tractinsky et al., 2000), the ludic (Gaver, 2002), emotions (Desmet et al., 2001), and experience (McCarthy and Wright, 2004). Though different in detail, these approaches agree that attributes beyond effectiveness and efficiency play an important role for the appeal and acceptance of interactive products – a claim, nowadays widely accepted among academics and practitioners of HCI.

Many of the available models of User Experience (UX) broadly distinguish between instrumental, task-oriented, *pragmatic* and non-instrumental, self-oriented, *hedonic* attributes of interactive products (see Hassenzahl (2010) for an overview). More specifically,

Hassenzahl (2003, 2010) argued that *pragmatic quality* summarizes the product's perceived ability to support the achievement of *do-goals*, such as "making a telephone call", "finding a book in an on-line-bookstore", or "setting-up a webpage". However, people do those things for a reason. "Making a telephone call" is not an end in itself, it is – amongst others – a way to feel related to one's spouse when being away or a way to kill time when being bored (i.e., to feel stimulated). Such underlying reasons ultimately stem from basic human needs, such as relatedness, stimulation, or competence (Hassenzahl et al., 2010). They describe how people want to be (e.g., related, stimulated, competent); they are *be-goals* (see Carver and Scheier, 1998). *Hedonic quality* summarizes the product's perceived ability to support the achievement of such be-goals. Assessing a product's pragmatic quality calls for a focus on functionality and usability in relation to a potential task at hand. Assessing a product's hedonic quality calls for a focus on the Self and its needs, that is, the question of why someone owns and uses a particular product. The concept of hedonic quality is still evolving. But the contribution of hedonic quality to a product's appeal and acceptance, and the viability of separating the hedonic from the pragmatic, are already well-supported empirically (e.g., Hassenzahl and Monk, 2010; van Schaik and Ling, 2008; van Schaik and Ling, 2011).

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An aspect so far neglected by HCI researchers is the potential impact of the qualitative difference between hedonic and pragmatic quality attributes on product choice. Just imagine choosing between a $50 certificate for a dinner in a nice restaurant (i.e., a hedonic option) and a $50 certificate for groceries from the supermarket around the corner (i.e., a pragmatic option). Okada (2005) confronted people with both alternatives in a combined choice situation. Although participants *rated* the dinner certificate to be more appealing, they predominantly *chose* the groceries certificate. Okada (2005) argued this to be the consequence of a justification process. Driven by a general need for justification, people think about reasons for their choice. However, it may be more difficult to envision reasons for obtaining primarily hedonic objects, because their benefits are rather diffuse and hard to quantify. In addition, hedonic alternatives often go beyond the bare necessity. Thus, they are viewed as wasteful, and their acquisition or consumption becomes associated with luxury, indulgence, or guilt (e.g., Kivetz and Simonson, 2002; Prelec and Loewenstein, 1998; Strahilevitz and Myers, 1998). Hedonic quality – or more broadly, positive experiences through fulfillment of human needs – can be understood as the ultimate benefit of using a product. Nevertheless, this benefit is more ephemeral and, thus, harder to justify than any pragmatic benefit of product use. This imbalance may be even more pronounced in the domain of interactive products, with its traditional focus on task-fulfillment. From this perspective, the importance of pragmatic attributes is self-evident. They typically do not require additional justification. But to justify hedonic attributes, one cannot rely on the widely accepted notion of task-fulfillment. Since they benefit "only" the Self, one needs to refer to personal needs and feelings, and the subjective pleasure derived from hedonic attributes. This certainly emphasizes their relevance for experience. But at the same time, the subjectivity and seeming irrationality of hedonic attributes makes them more questionable as a reason for choice. To summarize, while hedonic quality is appealing, its potential consideration in choice falls well behind that of pragmatic quality. This is due to a need to justify a choice and an asymmetry in the justifiability of hedonic and pragmatic attributes.

Diefenbach and Hassenzahl (2008, 2009) found evidence for this phenomenon in the context of interactive products. Their studies focused on visual appeal (i.e., beauty) as a hedonic attribute and usability as a pragmatic attribute of mobile phones. Note, that we understand an "attribute" as a quality aspect that individuals ascribe to the product, based on information provided or personal experience. Usability is thus a judgment about a product's *perceived* capability to achieve given tasks, in a given context, with certain efficiency. This is akin to "apparent usability" (Kurosu and Kashimura, 1995) or "perceived usability" (e.g., Tractinsky et al., 2000). Beauty is thought of as a judgment as well, more specifically, "a predominantly affect-driven evaluative response to the visual Gestalt of an object" (Hassenzahl, 2008). Attributes like "usability" and "beauty" thus refer to people's judgments about those particular aspects of interactive products. In their studies, Diefenbach and Hassenzahl (2009) revealed a reluctance to pay for a more beautiful mobile phone (Study 1) but a preference for a more beautiful phone when no surcharge was required (Study 2). However, participants who then chose the more beautiful phone still justified their choice by referring to marginal advantages in usability. Finally, another choice scenario required an explicit trade-off between beauty and usability, i.e., there was no opportunity to justify the choice of the more beautiful phone by pragmatic attributes. This led to a sharp increase in choices of the primarily pragmatic phone (Study 3). In sum, those studies demonstrated that people appreciate beauty (Study 2), but at the same time are not willing to pay for it (Study 1), or to accept any drawbacks in usability in return (Study 3). We suggested that those

preference shifts reveal a basic preference for beauty (i.e., the hedonic), which, however, is overridden in situations where people feel a need to justify their choice. The aim of the present research is to gain a deeper understanding of this *Hedonic Dilemma* – or the dilemma of "why don't we choose what makes us happy?" (Hsee and Hastie, 2006) – and the specific role of justification.

This paper starts with a discussion of the theoretical background of the suggested dilemma. We then present a series of four studies, organized in two parts, on the impact of justification within trade-offs between hedonic and pragmatic attributes. The present studies advance our understanding by not only demonstrating the phenomenon of context-dependent preference shifts between primarily hedonic and pragmatic products, but also by exploring justification as underlying driver. Study 1 revealed a correlation between the perceived need for justification and pragmatic choice, and identified differences in affective consequences of a primarily hedonic versus primarily pragmatic choice. Affective consequences and stated reasons for hedonic and pragmatic choice were further explored in Study 2. The second part of studies (Study 3 and Study 4) specifically explored ways of reducing the impact of the dilemma on choice. Study 3 enhanced the *justifiability* of hedonic choices by legitimating hedonic attributes. In Study 4, the general *need for justification* was reduced by framing a purchase as gratification. Altogether, the studies supported the notion that justification lies at the heart of the *Hedonic Dilemma*, and, in addition, demonstrated strategies to alleviate it.

2. Theoretical background

2.1. The origin of the hedonic/pragmatic model in consumer research

Since the influential article by Hirschman and Holbrook (1982) on hedonic consumption, many authors (e.g., Batra and Ahtola, 1990; Mano and Oliver 1993) in the field of consumer research took up the distinction between the hedonic and the utilitarian dimension of perceived product quality. While typical hedonic attributes are "exciting", "interesting", "fascinating", or "fun", utilitarian attributes are "efficient", "practical", "necessary", or "useful" (e.g., Batra and Ahtola, 1990; Spangenberg et al., 1997; Voss et al., 2003). A number of studies explored the relation of both dimensions to different facets of product experience, such as physiological arousal, affect in general, involvement, product satisfaction, resulting specific cognitions, and global product evaluation (e.g., Böhm and Pfister, 1996; Chandon et al., 2000; Dhar and Wertenbroch, 2000; Mano and Oliver 1993). A central finding was that both dimensions significantly contribute to product satisfaction (e.g., Mano and Oliver 1993). This implies that both, hedonic and pragmatic attributes, must be taken into account for creating a fully satisfying product experience.

2.2. Hedonic and pragmatic attributes of interactive products

Hassenzahl and colleagues (2000) first introduced the notion of hedonic and pragmatic (back then: ergonomic) quality to HCI and further developed the concept. Accordingly, scales capturing hedonic and pragmatic quality of interactive products have been developed (e.g., Hassenzahl et al., 2000, 2003; Huang, 2004; Karson, 2000). A number of studies explored the links of the two quality dimension to different facets of product experience (Hassenzahl, 2003; Chitturi et al., 2007). Finally, both dimensions have been identified as relevant predictors of an interactive product's overall evaluation (e.g., Hassenzahl, 2001; van Schaik and Ling, 2008, 2011).

In fact, the ubiquitous, continuous impact of hedonic attributes on product experience seems obvious. Beauty, for example,