

Products can be described by different numbers of attributes, but can the mere number of attributes presented across a choice set influence what type of options people choose? This article demonstrates that attribute numerosity tends to benefit certain types of options more than others and consequently has systematic effects on choice. Because attributes often serve as a heuristic cue for product usefulness, they benefit options that people perceive as relatively inferior on this dimension. Consistent with this perspective, five studies demonstrate that attribute numerosity benefits hedonic more than utilitarian options by increasing the extent to which the former appear useful. Consequently, increasing attribute quantity equally across the choice set shifts choice toward hedonic options, regardless of whether the attributes are hedonic, utilitarian, or mixed in nature. Consistent with this conceptualization, these effects become amplified when decision makers engage in heuristic processing and when priming makes usefulness salient. The findings have important implications for how marketers present attribute information, for public policy and consumer welfare, and for understanding argument numerosity effects in persuasion more broadly.

Keywords: attributes, numerosity, hedonic and utilitarian choice, attitudes, conjoint analysis

How Attribute Quantity Influences Option Choice

Consumers often consider attribute information when choosing among products. They compare nutritional values when grocery shopping, examine specifications when buying electronics, and contrast product features when selecting household goods. Not surprisingly, decades of research have found that attribute levels and the factors that determine how much weight is assigned to each level influence evaluation and choice (Chernev 1997, 2001; Dhar, Nowlis, and Sherman 1999; Fishbein and Ajzen 1975; Green and Srinivasan 1990; Hsee et al. 2009; Nowlis and Simonson 1997).

Depending on the situation, however, consumers may view different numbers of product attributes listed across the choice options. For example, some car rental websites (e.g., Avis.com) highlight only a few key features of each vehicle (e.g., category, passenger capacity), whereas others (e.g., Hertz.com) list dozens of attributes under each option (e.g., cargo room, gas mileage, safety and

entertainment features). Store displays may include just the basic facts (e.g., a smartphone's type of operating system, networks covered) or a more detailed description (e.g., weight and size, applications, various multimedia capabilities). Although it is clear that attribute *content* matters, could the mere *number* of product attributes listed systematically change what people select, even when it is the same across all options? Might more exhaustive attribute lists lead consumers to rent beefy roadsters rather than efficient sedans or prefer fun- to productivity-oriented phones?

We suggest that it can. Our basic proposition is that attribute numerosity does not influence the attractiveness of all evaluation targets to the same degree. Thus, the effect of attribute quantity on evaluation is moderated by the type of option. Specifically, we argue that attribute numerosity is often a heuristic cue for usefulness (Thompson, Hamilton, and Rust 2005). Consequently, it tends to benefit the evaluation of options that are perceived as relatively less useful (e.g., hedonic) compared with options that already are perceived as useful or practical (e.g., utilitarian). In the choice between hedonic and utilitarian options (Dhar and Wertenbroch 2000), increasing attribute quantity equally across the choice set should therefore lead to increased choice of hedonics.

This research makes several important contributions. First, prior work implies that increasing attribute quantity equally across a choice set should simply make all the

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options seem more attractive and thus not affect choice (Carpenter, Glazer, and Nakamoto 1994; Petty, Cacioppo, and Schumann 1983). In contrast, we suggest that the seemingly trivial decision of how many attributes to list can have a significant impact on what people select.

Second, the findings have important implications for theories of attitude change and persuasion. Prior research has assumed that argument and attribute numerosity effects on attitude change depend on factors exogenous to the type of target being evaluated, such as people's tendency to attend to peripheral cues (Chaiken and Trope 1999; Petty and Wegener 1999). Our research instead suggests that numerosity effects depend on the *type* of evaluation target itself.

In the next sections, we develop hypotheses about how attribute quantity influences option choice. Five studies then test these hypotheses and explore the mediating role of perceived product usefulness in these effects. Finally, we discuss the broader implications of our findings for marketing practice, attitude change and persuasion theory, policy-making, and consumer welfare.

ATTRIBUTE QUANTITY AND PREFERENCE

Much prior research has examined the effects of attribute quantity on product evaluation. One robust finding is that adding attributes to a product increases consumers' perceptions of its capability, resulting in improved product evaluations (Mukherjee and Hoyer 2001). A nonnegative product attribute is typically associated with a functional benefit and therefore tends to increase overall perceptions of the usefulness of the product (Olson and Reynolds 1983; Thompson, Hamilton, and Rust 2005). Adding differentiating attributes to a specific brand can boost evaluations even when the attributes themselves are perceived as meaningless (Brown and Carpenter 2000). Additional product attributes can also be used as a reason or justification for choosing the product when choice conflict arises (Shafir, Simonson, and Tversky 1993).

We know less about how attribute numerosity might affect choice when all the options in the set have the same number of attributes. Prior work on numerosity has focused on either the effects of unequal attributes (i.e., one choice option has more attributes than others; Brown and Carpenter 2000; Carpenter, Glazer, and Nakamoto 1994) or evaluations of isolated targets (Maheswaran and Chaiken 1991; Petty, Cacioppo, and Schumann 1983). However, consumers often evaluate or choose among multiple options simultaneously, such that each is described on the same number of attributes. For example, many online shopping environments, such as Hertz.com or BestBuy.com, allow consumers to compare selected products side-by-side, typically accompanied by equally long lists of product features. Even when websites do not facilitate side-by-side comparisons, consumers may open multiple browser tabs to compare options. In such instances, do all options benefit to the same degree from the presence of multiple attribute listings? If not, how does increasing the number of attributes across all options in a choice set influence evaluation and choice?

HOW ATTRIBUTE QUANTITY AFFECTS CHOICE

We suggest that increasing the number of attributes across the choice set should increase the perceived usefulness of hedonic more than utilitarian options and consequently shift consumers' choices toward hedonic offerings.

First, the effect on evaluations of adding or increasing a product dimension depends on the marginal value that the added dimension contributes to the enhanced option (Meyer and Sathi 1985). The principle of multiattribute diminishing sensitivity (Nowlis and Simonson 1996) suggests that strengthening a product dimension contributes more overall perceived value to options that are relatively inferior on that dimension than to an option that already is superior on the same dimension. Broadly speaking, utilitarian options, or "shoulds," are perceived as relatively practical and useful because their benefits are often tangible and concrete. In contrast, hedonic options are "things which by definition one can do without" (Thomson 1987, p. 8), and their primary benefits lie in experiential, sensual, or emotional enjoyment (Kivetz and Keinan 2006; Shiv and Fedorikhin 1999). Therefore, increasing perceived option usefulness through attribute numerosity should benefit hedonic more than utilitarian options.

Moreover, the influence of inputs on judgments tends to be stronger when those inputs deviate more from baseline perceptions, such that even moderate inputs can have a stronger impact on judgment than extreme ones if the former are more deviant than the latter (Schwarz 2004; Whittlesea and Williams 2000). This principle is evident, for example, in metacognitive judgments. Ease of recall often serves as a source of information in frequency judgments when people believe recall should be difficult (Tversky and Kahneman 1973) but not when they believe it should be easy (Wänke, Schwarz, and Bless 1995). Similarly, decision difficulty can lead people to perceive the decision as more important, but only if the decision was perceived as easy to begin with (Sela and Berger 2012). By the same token, cues that speak to an option's usefulness, such as attribute numerosity, should have a more pronounced effect on judgments when the option is positioned as hedonic rather than utilitarian.

An increase in perceived usefulness also may help hedonic options more than utilitarian ones because it enables consumers to balance two competing goals: obtaining utilitarian benefits and hedonic pleasure. An enhanced hedonic option may be perceived as a means to resolve choice conflict through goal balancing (e.g., Fishbach and Dhar 2005; Fishbach and Zhang 2008). Furthermore, because hedonic options are frequently more difficult to justify than utilitarian ones (Kivetz and Simonson 2002; Sela, Berger, and Liu 2009), they are particularly likely to benefit from the existence of a "functional alibi" (Keinan, Kivetz, and Netzer 2009) or a utilitarian "token" (Urminsky and Kivetz 2011) that balances out their wastefulness and makes their purchase seem rational (Khan and Dhar 2006).

In summary, mere attribute numerosity (regardless of whether attribute content is hedonic or utilitarian) should increase the perceived usefulness of hedonic options more than utilitarian ones and thereby increase the choice share of the hedonic options:

- H₁: Increasing the number of product attributes equally across a choice set increases the choice share of hedonic over utilitarian options.
- H₂: The effect of attribute quantity on choice between hedonic and utilitarian options is driven by the perceived usefulness of the hedonic options.

To provide further evidence on the process behind these effects, we test for a moderating role of heuristic processing. Relying on mere attribute quantity as a cue for a product's usefulness is akin to using argument quantity, regardless of its content, as a heuristic cue for the validity of a persuasive message. Research in the persuasion tradition has long suggested that increasing the number of arguments that support a persuasive message can increase persuasion, especially under heuristic processing (Petty and Wegener 1999). Underlying this finding is the notion that people can assume that the position is likely to be stronger and more valid when it is accompanied by more arguments. Furthermore, when people lack motivation or ability to scrutinize individual arguments, more arguments may increase persuasion, even when the arguments themselves are weak or specious (Petty and Cacioppo 1984). In line with this reasoning, if consumers use mere attribute quantity, regardless of content, as a cue of product usefulness, the effect of attribute quantity on choice should be stronger with heuristic rather than systematic processing:

H₃: The previously hypothesized effect of attribute quantity on choice is stronger when people process information heuristically.

CURRENT RESEARCH

Increasing the number of attributes in a set can increase the choice share of hedonic relative to utilitarian options, especially under heuristic processing, by increasing the extent to which hedonic options are perceived as useful. We conducted five experiments to test these predictions. In Experiment 1a, we examine how mere attribute quantity influences the choice between hedonic and utilitarian options. Experiment 1b extends this experiment and tests the mediating role of perceived option usefulness. Next, we examine the moderating role of heuristic processing by measuring individual differences in the tendency to process information heuristically (Experiment 2) and manipulating available processing time (Experiment 3). Experiment 4 further tests the underlying role of perceived usefulness in these effects by priming some participants with the concept of usefulness and demonstrating that it enhances the effects.

These experiments demonstrate that these effects are driven by attribute numerosity rather than attribute content. In Experiment 1b for example, we use a paradigm in which attribute content cannot apply because the attributes appear in a foreign language that participants do not know. In Experiment 2, we use three attribute type conditions to show that the effects of numerosity hold regardless of whether the attributes themselves are completely hedonic, completely utilitarian, or mixed. In Experiments 3 and 4 we use balanced mixes of hedonic, utilitarian, and neutral attributes. Taken together, the studies show that it is the number of attributes, rather than their content, that drives the effects.

EXPERIMENT 1A: ATTRIBUTE QUANTITY AND OPTION CHOICE

In this experiment, we examined how attribute quantity influences the choice between hedonic and utilitarian options. Participants chose among four options, two inherently hedonic and two inherently utilitarian in nature,

described using either a smaller or a larger number of attributes. We predicted that the larger number of attributes would increase the choice share of hedonic options.

Method

Eighty-six participants (mean age = 27 years, range 18–46 years; 39% women) were recruited through a nationwide database and completed the experiment online. They were randomly assigned to one of two conditions (attributes: 2 vs. 9).

We asked participants to imagine they could receive one of four iPhone applications valued at \$1.99, none of which they owned. The options included two apps pretested to be utilitarian (Alarm Clock and ShopSavvy) and two pretested to be hedonic (Annie and iBeer, a virtual glass of beer). Each option was accompanied by a one-sentence description of the application. The choice of either a hedonic or a utilitarian option served as our dependent measure. Each utilitarian option was accompanied by either two or nine attributes, pretested to be utilitarian, and each hedonic option was accompanied by two or nine attributes, pretested to be hedonic,¹ as we detail in Appendix A.

Results and Discussion

The analysis revealed that increasing the attribute quantity from two to nine increased the choice share of hedonic options. Whereas 4.7% of participants chose either Annie or iBeer in the two-attribute condition, 23.3% did so in the nine-attribute condition ($\chi^2(1) = 6.20, p < .02$). The effect of attribute numerosity did not differ as a function of the specific options within each tier (both $\chi^2(1) < 1.89, n.s.$).

These results provide preliminary support for our conceptualization. We designed the next experiment to generalize these findings, rule out an alternative explanation based on attribute content, and examine the mechanism underlying the effect.

EXPERIMENT 1B: THE ROLE OF PERCEIVED USEFULNESS

Experiment 1b achieves three goals. First, it examined how mere attribute quantity influences choice between hedonic and utilitarian options. Participants chose among four options, two hedonic and two utilitarian, described using either a smaller or a larger number of attributes. We predicted that a larger number of attributes would increase the choice share of hedonic options.

Second, we tested whether this effect occurs in a situation that cannot be explained by attribute content. We manipulated whether the options were framed as hedonic or utilitarian but kept the content of the attributes obscure by presenting them in a foreign language (Greek), unknown to the participants. Thus, they could see the quantity of the attributes but not the content. This situation provided a

¹A pretest examined people's perceptions of the attributes used for each option (1 = "completely practical," 4 = "equally practical and fun," and 7 = "completely fun"). The pretest indicated that the attributes accompanying the utilitarian options were perceived as highly utilitarian (1.84 and 2.28, respectively, both significantly less than 4, the neutral midpoint of the scale; $t(24) > 4.80, p < .001$). In contrast, the attributes accompanying the hedonic options were perceived as highly hedonic in nature (5.89 and 5.88, respectively; both $t(24) > 6.60, p < .001$).

strong test of whether the effects were driven by attribute quantity, beyond their content.

Third, the experiment directly tested our proposed mechanism. We suggested that more attributes should increase the choice of hedonic options by increasing the extent to which hedonic, but not utilitarian, options were perceived as useful and providing a practical benefit. In Experiment 1b, we tested the mediating role of perceived product usefulness in these effects.

Method

Ninety participants (mean age = 29 years, range 19–61 years; 41% women) were recruited through a nationwide database and completed the experiment online. They were randomly assigned to one of two conditions (attributes: 2 vs. 10).

Participants were told that the experimenters were “interested in how people choose based on information in a foreign language.” On a separate screen, participants were shown four laptop options. We manipulated whether the item was hedonic or utilitarian using a framing manipulation validated in prior work (Sela, Berger, and Liu 2009). Two items were labeled “made for fun,” while the other two were labeled “made for work.” The framing of the different options as hedonic or utilitarian was counterbalanced to rule out any order effects.

Each option was accompanied by either two or ten attributes. Although each option label (e.g., “Fujitsu Lifebook CE-7630”) and framing (i.e., fun vs. work) appeared in English, the attributes themselves appeared in Greek, a language that none of our participants spoke (see Appendix B).

The participants selected the option they preferred, and their choice of either a hedonic or a utilitarian (i.e., fun or work) laptop served as our dependent measure. They then responded to several ancillary measures on a separate screen. Specifically, they rated the extent to which the fun and work laptops they saw seemed useful, practical, fun, and pleasurable overall (1 = “not at all,” and 7 = “very much”). We averaged the usefulness and practicality ratings to form separate usefulness scores for the fun and work options ($r = .75$ and $r = .67$, respectively). Likewise, we averaged the ratings of fun and pleasurable to form separate pleasurable scores for the fun and work options ($r = .83$ and $r = .70$, respectively).

These measures enabled us not only to test our mediation hypothesis but also to rule out alternative explanations. For example, if attribute quantity increased option attractiveness in general or made the hedonic options seem more pleasurable, options with more attributes should be rated as more pleasurable. In contrast, we hypothesized that the effect of attribute quantity on option attractiveness would be mediated by the perceived usefulness but not the pleasurable of the hedonic options, which should bolster the discriminant validity of our proposed mediator. Finally, we asked participants whether they knew Greek. None indicated that they did.

Results

Effect of attributes on choice. The analysis revealed that increasing attribute quantity from two to ten increased the choice share of hedonic options. Whereas 31.8% of participants chose a laptop framed as “made for fun” in the

two-attribute condition, this percentage jumped to 54.3% in the ten-attribute condition ($\chi^2(1) = 4.65$, $p < .05$).

Effect of attributes on potential mediators. We examined the effect of attribute quantity on each of the potential mediators. As we predicted, a series of analyses of variance indicated that more attributes significantly increased the perceived usefulness of the hedonic options (i.e., fun laptops; $M_2 = 3.9$ vs. $M_{10} = 4.6$; $F(1, 88) = 4.28$, $p < .05$) but had no effect on the perceived usefulness of the utilitarian options or the perceived pleasure associated with either option type (all $F(1, 88) < .5$, n.s.).

Mediation analysis. We examined whether attribute quantity influenced choice due to the effect of the attributes on the perceived usefulness of the hedonic options. Our mediation analysis relied on the approach and SPSS macro that Preacher and Hayes (2004) developed. The results indicated that attribute quantity predicted our mediator, perceived usefulness, in the mediator model ($t = 4.39$, $p < .001$). In the dependent variable model, perceived usefulness predicted choice ($t = 4.31$, $p < .001$), whereas attribute quantity did not ($t = 1.15$, n.s.). The indirect effect of attribute quantity on choice through perceived usefulness was significant ($z = 2.10$, $p < .05$), which suggested that the effect of attribute quantity on choice was mediated by the greater perceived usefulness of the hedonic options.

Discussion

The results of Experiment 1b supported our theorizing about the effect of attribute numerosity on option choice, provided evidence for the underlying process, and ruled out content-based and other interpretations of our results. First, mere attribute quantity influenced option choice. Describing options with more attributes increased the choice share of hedonic options. Second, this effect was mediated by perceived usefulness. More attributes increased the perceived usefulness of hedonic (but not utilitarian) options, which drove the effect of attributes on choice. Third, the data ruled out several alternative explanations for the effects. Attribute quantity did not influence the perceived pleasurable of either hedonic or utilitarian options or the perceived usefulness of utilitarian options. Thus, the effects on choice cannot be explained by the increased pleasurable of the hedonic options or the decreased perception of the usefulness of the utilitarian options. Nor could the effects be explained by attribute content, because the attributes appeared in Greek, which none of our participants could understand.

Ancillary data cast further doubt on the notion that attribute content drove the effects. One could argue that even if respondents could not read the attribute content, they could infer that the attributes were mostly utilitarian, because in many real-world cases, product attributes are utilitarian in nature. If participants made this inference, the increase in the perceived usefulness of the hedonic options could be due to inferred attribute content rather than mere numerosity. However, this explanation did not hold. After rating the options, participants again reviewed the choice stimuli; this time, we asked them to think about the attributes and indicate to what extent the attributes listed under each option were likely designed to increase usefulness as opposed to pleasure (1 = “definitely designed to increase usefulness,” 4 = “equally likely to increase usefulness and pleasure,” and 7 = “definitely designed to increase pleasure”). Participants responded separately for the work

and fun options. They rated the attributes listed under the hedonic options as more likely to be designed for pleasure than the neutral midpoint of the scale ($M = 4.9$; $t(89) = 6.64$, $p < .001$), regardless of attribute quantity ($F(1, 88) < .01$, n.s.). Attributes listed under the utilitarian options were perceived as slightly but not significantly more likely to be designed for practical benefits ($M = 3.80$; $t(89) = 1.26$, n.s.). There was no effect of attribute quantity on people's intuitions regarding the nature of attributes ($F(1, 88) = 1.66$, n.s.). Thus, it is unlikely that the effect of attribute quantity on choice was due to inferences regarding the utilitarian nature of the attributes accompanying the hedonic options. The next experiment further generalized these findings to test the role of heuristic processing.

EXPERIMENT 2: THE ROLE OF HEURISTIC PROCESSING

Experiment 2 served two goals. First, to further demonstrate the independence of our effect from attribute content and from the type of attributes being presented (i.e., hedonic vs. utilitarian attributes), we used three attribute type conditions. We presented participants with four smartphone options, two labeled as more hedonic and two labeled as more utilitarian. They were all described using either two or eight attributes that were completely hedonic, completely utilitarian, or a mix of hedonic and utilitarian attributes. Second, to demonstrate the heuristic nature of the effect, we tested whether it was moderated by individual differences in the tendency to deliberate carefully (i.e., need for cognition [NFC]; Cacioppo, Petty, and Kao 1984).

Consistent with our conceptualization, we predicted that describing the phones by more attributes would increase the selection of the more hedonic options (i.e., fun phones), regardless of the type of attributes being used. This effect also should be stronger among people who processed more heuristically (i.e., lower NFC).

Method

Participants and procedure. Two hundred forty people (mean age = 29 years, 41% women), recruited from the same pool as in Experiment 1, were randomly assigned to one of six conditions in a 2 (attribute quantity: two vs. eight) \times 3 (attribute type: all-hedonic vs. all-utilitarian vs. mixed) between-subjects design. Participants saw an array of four smartphone options offered by two leading brands. Two options (one from each brand) were labeled "made for work," whereas the other two options were labeled "made for fun." Each phone was described by a color picture and two or eight product features.

We conducted a pretest to identify attributes that were perceived as hedonic versus utilitarian. The pretest identified eight hedonic attributes (i.e., multimedia formats supported, video recording capabilities, graphics quality, music sound quality, exterior design, exterior color availability, music and video storage capacity, and display quality) and eight utilitarian attributes (keyboard type, e-mail services supported, word processing and spreadsheet software, additional productivity software included, internal GPS, talk time, standby time, and built-in utilities such as calendar and alarm), as we detail in Web Appendix A (see www.marketingpower.com/jmr_webappendix).

Participants in the main study chose among four smartphones described by either two or eight attributes. We

manipulated attribute type depending on the condition. In line with the pretest results, each option was accompanied by all hedonic attributes (two or eight), all utilitarian attributes (two or eight), or half hedonic and half utilitarian attributes (one and one, or four and four).

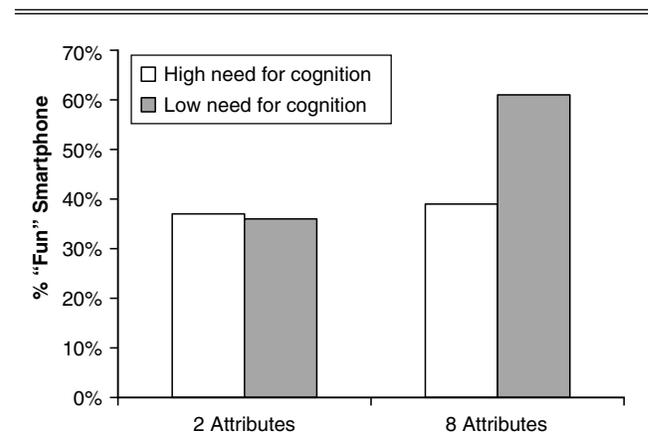
After choosing their preferred option, participants completed an unrelated filler task and then completed the 18-item need for cognition scale. Their NFC scores were not influenced by either attribute quantity ($F(1, 234) < 1$, n.s.) or attribute type ($F(2, 234) < 1$, n.s.).

Results

We used a logistic regression analysis to examine the effect of attribute quantity (two vs. eight), attribute type (all-hedonic vs. all-utilitarian vs. mixed), and NFC (continuous) on whether participants chose a utilitarian ("work") or hedonic ("fun") option. As we predicted, the results revealed a main effect of attribute quantity on choice. Participants were more likely to select a hedonic option when the options were described by eight versus two attributes (50% vs. 36%; $\chi^2(1) = 5.54$, $p < .05$). There was no main effect of attribute type ($\chi^2(1) < 1$, n.s.) or an interaction between attribute type and attribute quantity ($\chi^2(1) < 1$, n.s.). Thus, the effect of attribute quantity on choice held, regardless of whether the attributes used were hedonic, utilitarian, or a balanced combination of the two.

The main effect of attribute quantity was qualified by the predicted attribute quantity \times NFC interaction ($\chi^2(1) = 4.30$, $p < .05$). The decomposition of this interaction at one standard deviation above and below the mean NFC level (Aiken and West 1991) revealed a significant effect of attribute quantity among low-NFC participants ($\text{Exp}(B) = 3.00$; $\chi^2(1) = 8.08$, $p < .005$), such that more attributes increased their choice of hedonic options. A median split of the sample according to their NFC scores showed that whereas 36% of low-NFC participants selected a hedonic option when exposed to fewer attributes, 61% of them did so when exposed to more attributes (see Figure 1). There was no comparable effect of attribute quantity among high-NFC participants ($\text{Exp}(B) = .99$; $\chi^2(1) = .01$, ns; 37% vs. 39%). Finally, there was no three-way interaction of

Figure 1
EFFECT OF ATTRIBUTE QUANTITY AND NFC ON
SMARTPHONE CHOICE (EXPERIMENT 2, COLLAPSED
ACROSS ALL ATTRIBUTE TYPES)



attribute quantity \times NFC \times attribute type ($\chi^2(1) < 1$, n.s.), suggesting that the significant attribute quantity \times NFC interaction was not influenced by attribute content.

Discussion

Experiment 2 bolstered our hypotheses about how attribute numerosity influences option choice. Consistent with Experiments 1a and 1b, increasing the number of product attributes from two to eight led more people to choose a hedonic over a utilitarian option, regardless of attribute content or the type of attributes presented.

Moreover, as we hypothesized, these effects were moderated by the tendency to process heuristically. The effect of attribute quantity on option choice was stronger among people with a lower NFC. These findings supported our hypothesis regarding the heuristic nature of the process underlying the effect. Whereas prior findings suggest that attribute (and argument) quantity influences evaluation in a heuristic manner, regardless of the type of option being evaluated, our findings indicated that some types of options benefit from numerosity more than others.

It could be argued that the moderation result of Experiment 2 was due to individual differences. Low-NFC people could be prone to choosing hedonic options in general, so increasing attribute quantity merely amplified or validated this baseline tendency. To rule out this explanation, in Experiment 3 we manipulated rather than measured the tendency to process heuristically.

EXPERIMENT 3: MANIPULATING HEURISTIC PROCESSING

Experiment 3 extended the prior experiments in two important ways. First, rather than operationalizing attribute quantity in a binary manner (e.g., two versus ten), we used three attribute quantity conditions (two, five, and ten attributes), to form a quasi-continuous attribute quantity variable. Thus, we could examine how increasing the number of attributes at different levels affected choice. Second, rather than measuring individual differences in processing style as a moderator, we directly manipulated the likelihood of heuristic evaluation by using a time constraint manipulation. By manipulating rather than measuring the tendency to process heuristically, we ruled out an alternative account, according to which people who tend to process heuristically also prefer hedonic options.

Half the participants were forced to choose quickly, which hinders effortful deliberation and increases the use of peripheral cues (Ratneshwar and Chaiken 1991) and heuristic, noncompensatory decision strategies (Dhar and Nowlis 1999; Payne, Bettman, and Johnson 1988; Svenson, Edland, and Slovic 1990). The other half were not subjected to the time constraint manipulation. Consistent with Experiment 2, we expected more attributes to increase the choice likelihood of the hedonic option and that this effect would be particularly pronounced when people were forced to decide quickly and process more heuristically.

Method

Participants ($N = 298$, mean age = 28 years, 40% women) were randomly assigned to conditions in a 3 (attribute quantity: two vs. five vs. ten) \times 2 (deliberation: constrained vs. unconstrained) between-subjects design. We used two inkjet printer-scanner-copier machines and two

media players as the choice options because a pretest indicated that products from these categories were perceived as utilitarian and hedonic, respectively (see Web Appendix B, at www.marketingpower.com/jmr_webappendix).

Participants imagined having received a gift certificate to an electronics store, which they could exchange for one of four options. Before seeing the options, participants in the time-constrained condition were told the following: "In the next screen, you will have only 15 seconds to view the products and choose your preferred option. The page will change automatically after about 15 seconds." Participants in the unconstrained condition did not see this information and instead were instructed to "consider the options carefully and deliberately" for as long as they wanted.²

Participants then saw two printers and two media players and indicated which option they preferred. The options were described by two, five, or ten attributes, depending on the experimental condition. All the attributes had been pretested to ensure that they were perceived as desirable and that each option was accompanied by a balanced combination of hedonic, utilitarian, and neutral (i.e., equally hedonic and utilitarian) attributes.

The focal dependent variable was whether participants selected a utilitarian option (i.e., printer) or a hedonic option (i.e., media player). After making their selection, participants completed several ancillary measures. As manipulation checks, they rated on seven-point scales the extent to which they felt time pressure while choosing and the extent to which they thought carefully and deliberately about the different options. We also measured the actual amount of time participants spent, in seconds, before submitting their decision.

Results

Manipulation checks. Analyses of variance indicated that the deliberation manipulation had the intended effect. Participants in the time-constrained condition reported feeling more time pressure ($F(1, 292) = 19.45$, $p < .001$) and deliberating less ($F(1, 292) = 10.21$, $p < .05$) than those in the unconstrained condition. They also spent considerably less time deciding ($M_{\text{constrained}} = 14.57$, $M_{\text{unconstrained}} = 35.39$; $F(1, 292) = 21.20$, $p < .001$), and this difference did not vary as a function of attribute quantity ($F < 1$, n.s.). There were no significant main effects or interactions involving the number of attributes on these measures (all $F < 2$, n.s.).

Effect of attributes and deliberation on choice. The results were qualitatively the same when we treated attribute quantity as an ordinal (i.e., few, more, or many) or a continuous (i.e., values of 2, 5, or 10) variable. The following analysis is based on the ordinal coding.

We examined the results using a deliberation (constrained vs. unconstrained) \times attribute quantity (two vs. five vs. ten) logistic regression analysis. First, consistent with our predictions, the analysis revealed a main effect of attribute quantity. Increasing the number of attributes increased the choice of the hedonic option (i.e., media players; $M_2 = 41\%$, $M_5 = 51\%$, $M_{10} = 66\%$; $\chi^2(2) = 13.80$, $p < .001$).

²Because our intention in the time-constrained condition was to induce a psychological sense of urgency rather than to constrain people's ability to enter a decision, the page was set to advance automatically after 25 seconds. Participants could submit the page sooner if they were ready to do so.

Second, this main effect was qualified by the predicted deliberation \times attribute quantity interaction ($\chi^2(2) = 6.52, p < .05$). As we show in Figure 2, the effect was particularly pronounced in the time-constrained condition ($M_2 = 33\%$, $M_5 = 56\%$, $M_{10} = 72\%$; $\chi^2(2) = 14.82, p < .001$) but was attenuated in the unconstrained condition ($M_2 = 46\%$, $M_5 = 48\%$, $M_{10} = 61\%$; $\chi^2(2) = 2.60, n.s.$).

Discussion

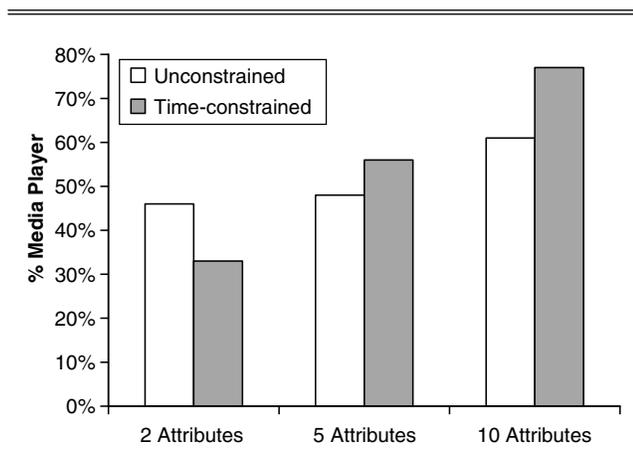
Experiment 3 underscored the generalizability of our findings and demonstrated the progressive effect of attribute numerosity. Increasing the number of attributes that described each option from two to five to ten increased the choice of hedonic options. The results also illustrated the heuristic nature of the process underlying the effect. As we hypothesized, the effect of attribute quantity on option choice was stronger when heuristic processing was induced—namely, when participants were rushed to make a quick decision—but was attenuated when effortful deliberation was encouraged. This finding rules out an alternative account based on an individual tendency among low-NFC people to select hedonic options.

One might argue that the increased choice of media players was due to the salience of the iPod brand, which people may have chosen heuristically in the time pressure condition. However, ancillary analyses showed that this was not the case. This alternative explanation would imply that the choice share of the iPod option among people choosing media players should increase as a function of time pressure or of the product of time pressure and attribute quantity. However, although most people choosing a media player preferred the iPod to the Zune in general, a logistic regression revealed no effects of time pressure, attribute quantity, or their interaction on the choice share of the iPod option (all $\chi^2(1) < 1.5, n.s.$). Therefore, this alternative explanation was inconsistent with the data.

EXPERIMENT 4: PRIMING USEFULNESS

Experiment 4 further tested the underlying role of perceived usefulness in our effects. If attribute numerosity

Figure 2
EFFECT OF ATTRIBUTE QUANTITY AND TIME CONSTRAINT
ON CHOICE OF MEDIA PLAYER VERSUS PRINTER
(EXPERIMENT 3)



influences choice by increasing the perceived usefulness of hedonic options, as we have suggested, it should have particularly strong effects on choice among usefulness-minded people. Thus, we primed half the participants with the concept of usefulness and examined the effects on choice.

Priming people with a construct usually leads them to choose options consistent with the activated construct. For example, priming people with words related to frugality (vs. luxury) can increase the choice share of frugal (vs. luxurious) options (Sela and Shiv 2009). Consequently, priming people with usefulness should generally increase the choice likelihood of options perceived as useful, such as utilitarian options. However, our theory predicts an interaction effect between the usefulness prime and the number of attributes presented. That is, priming usefulness should generally increase the choice of utilitarian options, but the presence of multiple product attributes should make the hedonic options appear more utilitarian and therefore weaken the shift toward utilitarian options under a usefulness prime.

Method

One hundred eighty participants (mean age = 30 years, range 18–58 years; 50% women) were recruited through a nationwide database and completed the experiment online. They were randomly assigned to a 2 (attributes: 2 vs. 10) \times 2 (priming: usefulness vs. neutral) between-subjects design.

First, we primed half the participants with usefulness. In a standard sentence-unscrambling task (e.g., Bargh and Chartrand 2000), participants unscrambled 20 scrambled six-word sentences (presented as a language skills task). Fifteen of the sentences contained words related to usefulness (e.g., practical, function, useful, utility, efficiency) or words that were neutral (e.g., bird, bike, nice, echo, dress).

Second, participants moved on to a purportedly unrelated choice task, in which they selected a laptop computer from among four options. Each option was accompanied by either two or ten attributes. A pretest of attribute perceptions similar to the one we reported in Experiment 2 provided the balanced combination of hedonic and utilitarian attributes that accompanied each option. Specifically, participants saw one hedonic and one utilitarian attribute for each option in the two-attribute condition or five hedonic and five utilitarian attributes in the ten-attribute condition. Hedonic attributes included graphics, sound, external colors available, display color quality, and exterior design (all $M < 2.59; t(54) > 2.16, p < .05$, relative to the neutral midpoint). Utilitarian attributes included processor type, memory capacity, antivirus and security features, wireless connectivity features, and type of DVD combo (all $M > 3.82; t(54) > 3.21, p < .01$, relative to the neutral midpoint). See Web Appendix C (www.marketingpower.com/jmr_webappendix).

Two laptop options were labeled “laptops built for work,” whereas the other two were labeled “laptops built for fun.” The framing of the different options as hedonic or utilitarian was counterbalanced across options to rule out the possibility that specific attributes contributed to the attractiveness of hedonic versus utilitarian options. Framing order did not affect choice, nor did it interact with other factors; therefore, we did not consider it further. Participants selected the option they preferred, and their choice of either a hedonic (i.e., “fun”) or a utilitarian (i.e., “work”) laptop served as our dependent measure.

Finally, participants were funnel debriefed. The debriefing revealed that none of the respondents was aware of our hypothesis, and none of them thought the sentence-unscrambling task was related to the choice task or affected their choices.

Results

We conducted a binary logistic regression analysis of choice, with attribute quantity and priming as independent variables. Consistent with our prior studies, a main effect of attribute quantity indicated that increasing the attribute quantity from two to ten increased the choice share of hedonic options (i.e., fun laptops), regardless of the specific attributes used. Whereas only 16.7% of participants selected a hedonic option in the two-attribute condition, 52.2% of them did so in the ten-attribute condition ($\chi^2(1) = 22.22, p < .001$).

This main effect was qualified by an attributes \times prime interaction ($\chi^2(1) = 4.84, p < .05$). When only two attributes were presented, a usefulness prime decreased the choice of hedonic options, compared with the neutral prime (8.2% vs. 26.8%; $\chi^2(1) = 5.60, p < .05$). When ten attributes appeared however, this effect disappeared and actually reversed slightly—namely, people chose slightly more hedonic than utilitarian options (55.1% vs. 48.8%; $\chi^2(1) < .1, n.s.$), as Figure 3 depicts. Thus, as we predicted, the presence of multiple product attributes attenuated the shift toward utilitarian options.

If the effect of attribute numerosity on choice were driven by usefulness perceptions, increasing the cognitive salience of usefulness should intensify the effect. Consistent with this perspective, the effect of attribute quantity was significant in the neutral prime condition (26.8% vs. 48.8%; $\chi^2(1) < 4.20, p < .05$), but it grew even larger in the usefulness prime condition (8.2% vs. 55.1%; $\chi^2(1) < 24.96, p < .001$).

Discussion

Experiment 4 underscored the notion that the effects were driven by greater perceived usefulness of the hedonic options. Priming participants with usefulness should

generally increase the choice of utilitarian options, but if attribute numerosity made hedonic options appear more useful, it should have weakened the shift toward utilitarian options. Consistent with our prediction, priming usefulness increased the choice of utilitarian options in the two-attribute condition, but increasing attribute quantity to ten eliminated this tendency.

GENERAL DISCUSSION

Consumer choice often involves the consideration of attributes, and extensive research has demonstrated that attribute content (e.g., the specific number of megapixels, miles per gallon) influences attitudes and choice. However, although prior work has recognized that more attributes generally increase the attractiveness of options evaluated in isolation or options with unique attributes, consumers often choose among options described with the same number of attributes (e.g., cars displayed on a car rental website). In these situations, how might mere attribute quantity influence the type of option consumers choose?

Summary of Findings

Contrary to what we might expect on the basis of prior work (Petty and Wegener 1999), we demonstrate that attribute numerosity does not influence the evaluation of all options to the same degree. Merely changing attribute quantity across choice options can have systematic effects on the type of option people choose. More attributes serve as a heuristic cue for product usefulness, which in turn tends to benefit certain types of options (e.g., hedonic products or “wants”) more than others (e.g., utilitarian products or “shoulds”), especially under heuristic processing.

In support of this account, increasing the number of product attributes increased the choice share of hedonic options, such as fun apps (Experiment 1a), laptops (Experiments 1b and 4), smartphones made for gaming (Experiment 2), and media players (Experiment 3). Furthermore, in support of the heuristic nature of the underlying process, this effect was particularly pronounced among respondents who tended to process information more heuristically (Experiment 2) as well as in situations that constrained people’s ability to deliberate (Experiment 3). Consistent with our hypothesized process, these effects were driven by the effect of attribute quantity on the perceived usefulness of hedonic options (Experiments 1b and 4).

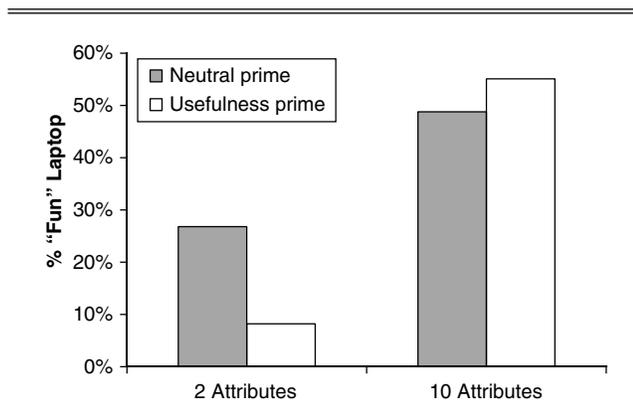
Alternative Explanations

Our experimental designs ruled out several alternative explanations. First, we excluded the possibility that these effects were driven by attribute content rather than attribute numerosity. In Experiment 1b for example, we demonstrated the effects of numerosity in a case in which content could not apply, because the attributes appeared in a foreign language unknown to the participants. In Experiment 2, we used three attribute type conditions to show that the effects of numerosity held regardless of whether the attributes were completely hedonic, completely utilitarian, or mixed in nature. Taken together, the studies showed that the number of attributes, not their content, drives the effects.

Moreover, decades of research on persuasion and attitude change have indicated that argument or attribute content

Figure 3

EFFECT OF ATTRIBUTE QUANTITY AND USEFULNESS PRIMING ON CHOICE OF FUN VERSUS WORK LAPTOP (EXPERIMENT 4)



influences evaluation when people evaluate more systematically and deliberately (Petty and Cacioppo 1984; Petty and Wegener 1999). If attribute content were driving our effects, they should have been stronger among people higher in NFC and those unconstrained by our time manipulation. In contrast, our findings suggested that the effect was most pronounced among time-constrained participants and those with low NFC, namely, those least likely to be influenced by the content.

It could be speculated that increasing the attribute quantity increased choice difficulty (Jacoby et al. 1974; Keller and Staelin 1987; Lurie 2004) and thus led people to “give up” and choose an emotionally gratifying hedonic option. Yet this account is inconsistent with prior research that suggests that choice difficulty tends to lead consumers to prefer utilitarian options to hedonic ones because the former are easier to justify (Sela, Berger, and Liu 2009). We tested this account in Experiment 3 by having participants rate (1–7 scale) the extent to which it was difficult to decide which option to choose and the extent to which it was difficult to make a selection (averaged to form a choice difficulty index, $r = .76$). Consistent with our manipulation check, participants rated the decision as more difficult in the constrained condition ($M_{\text{constrained}} = 4.51$, $M_{\text{unconstrained}} = 3.85$; $F(1, 292) = 13.68$, $p < .001$), but there were no main effects or interactions involving attribute quantity on choice difficulty (all F s < 1.4 , n.s.). Consequently, explanations based on choice difficulty could not explain the effect of attribute quantity on option choice (see also Hendrick, Mills, and Kiesler 1968). Finally, a choice difficulty account could not explain the results of another study we ran in which participants did not make a choice but rather evaluated a single product framed as either hedonic or utilitarian.

It could also be argued that the effect of attribute quantity reflected a shift toward a more concrete or detail-oriented processing style with greater attribute quantity. This alternative explanation also seems unlikely, because concrete, detail-oriented processing of multiple attributes inevitably implies greater cognitive effort. In contrast, our findings suggest that the effect is stronger when people process more heuristically. Moreover, a concrete, detail-oriented mode of evaluation is characterized by concrete concepts and hard reasoning (Sloman 1996; Stanovich and West 2002), which favor affect-poor “should” or utilitarian options, whose attractiveness emerges through cognitive reasoning (Rottenstreich, Sood, and Brenner 2007; Shiv and Fedorikhin 1999).

Boundary Conditions

Although these effects likely generalize across many contexts, an important precondition is the actual existence of an explicit list of attributes. All products have attributes in the abstract sense, but our propositions apply only to those cases in which the product is actually presented to consumers accompanied by a list of attributes, as is often the case for durable and consumer packaged goods.

Another important boundary condition is the degree to which a larger number of attributes actually acts as a favorable heuristic cue of product usefulness. Multiple attributes may increase the perceived usefulness of media players for example, but multiple ingredients in certain food products may serve as a cue of artificial ingredients and therefore

make the product seem less palatable or healthful (and usefulness may not be relevant for such a product). An association between multiple ingredients and lower palatability or healthfulness may harm hedonic products more than utilitarian ones because it directly undermines the basis of the hedonic product’s appeal. Attribute numerosity could have an attenuated effect if it has little to do with usefulness perceptions (e.g., multiple attributes of a potential dating partner, such as eye or hair color; attributes of a night out, such as the quality of food, wine, and music). Our findings seem most applicable to durable goods (e.g., consumer electronics) and certain consumer packaged goods.

Theoretical and Practical Implications

Marketing practice. Considering the ubiquity of attribute descriptions, our results have important implications for marketing practice. Prior research would suggest that increasing attribute quantity equally across a choice set simply makes all the options more attractive and thus does not affect choice, but our work suggests otherwise. We show that a seemingly benign decision, such as how many attributes to use to describe the options provided, can have a significant impact on what people select.

Marketers and policy makers should think strategically when deciding how much attribute information to provide across choice options. Choice environments with both hedonic and utilitarian options should recognize that displaying more attributes could shift choice toward more hedonic options (e.g., sports cars, fun laptops, media players).

Similarly, designers of conjoint analysis option sets should recognize the impact of attribute quantity on option favorability. Prior conjoint research has focused mainly on how attribute numerosity increases the complexity and difficulty of the conjoint task (De Shazo and Fermo 2002; Green and Srinivasan 1990), but our findings suggest that describing products on more attributes might influence the ranking itself, benefiting some options more than others (e.g., brands with hedonic vs. utilitarian images).

Separate evaluation. Our findings also have implications for separate evaluations of individual options. An additional study we conducted illustrated this point. Participants evaluated a single laptop option, described using either fewer or more attributes, but in addition to manipulating attribute quantity, we manipulated whether the item was perceived as hedonic or utilitarian, using a framing manipulation similar to the one in Experiment 4. For half the participants, the laptop was labeled “Made for Fun,” while for the other half, it was labeled “Made for Work” (the actual attributes were the same).

Participants rated how attractive they found the laptop, the extent to which it seemed useful, and the extent to which it seemed pleasurable. Although increasing the number of attributes increased attractiveness when the laptop was framed as hedonic, it did not have a corresponding effect when the laptop was framed as utilitarian. Moreover, consistent with Experiment 1b, more attributes increased perceived usefulness when the laptop was framed as “made for fun” but not when the laptop was framed as “made for work.” As in Experiment 1b, the effect of attribute numerosity on choice was mediated by perceived usefulness.

These findings show that our propositions not only affect choice among alternatives but also have an impact on separate evaluations of individual products. Thus, they should apply to virtually any shopping situation in which people examine products accompanied by attribute lists (at least in certain categories). Marketers of frivolous products should consider increasing the number of attributes they display (e.g., on the product itself) because doing so can increase evaluation and choice.

Role of peripheral cues. The findings have important implications for understanding the role of peripheral cues in evaluation and persuasion more generally. Dual process theories (e.g., Chaiken and Trope 1999; Petty and Wegener 1999) have generally assumed that the effect of argument and attribute numerosity on attitude change depends on factors exogenous to the type of target being evaluated; we show that numerosity effects also depend on the nature of the option being evaluated. Prior work never examined whether argument numerosity effects on attitude change are moderated by whether the persuasive message itself advocates “utilitarian” comprehensive college exams (Petty and Cacioppo 1984), as opposed to “hedonic” prolonging of winter break. We suggest that the nature of the evaluation target moderates these effects. Thus, the theoretical importance of the current findings extends beyond consumer choice and offers interesting directions for additional research.

Other choice types. Although our investigation focused only on the choice between hedonic and utilitarian goods, these ideas also should apply to a broader set of dimensions. For example, because attribute numerosity is associated with greater product efficacy, it may have a stronger impact on the evaluation of an “underdog” brand (e.g., Kia) than on the evaluation of a more highly regarded brand (e.g., Toyota) because the former has more to gain with regard to perceived efficacy. Similarly, to the extent that argument numerosity is associated with greater legitimacy (i.e., it is easier to defend an attitude supported by more arguments), it may increase the favorability of an unconventional attitude more than a mainstream attitude because the latter is already perceived as legitimate.

Consumer welfare. Finally, the current findings have important implications for policy making and consumer welfare. Although it may seem counterintuitive, providing consumers with more attribute information (presumably to help them make more reasoned decisions) might actually backfire, pushing them to make more myopic choices that favor short-term indulgence. The decision whether to present more or fewer attributes therefore should depend on the situation and the type of options. For example, educators might advocate listing more product features on books and entertainment products to encourage educational choices, but our results suggest they should do the opposite. Listing more attributes might actually increase the choice of mindless games or vacuous books, at the expense of more educational alternatives. Similarly, when the goal is to make people choose more virtuous (e.g., dull but environmentally friendly) options rather than vices (e.g., fun but environmentally irresponsible options), avoiding extensive attribute lists may be more effective.

Being aware of the role of attribute quantity in decision making may also help consumers. Especially when evaluation resources are taxed or in situations in which consumers

tend to choose without much consideration, attribute numerosity might lead consumers to select frivolous products, luxury goods, and less healthful options instead of more educational, economical, or wholesome alternatives. To the extent that such systematic effects can push consumers away from optimal choices in the long run, their increased awareness of these potential biases may help consumers make more satisfying choices.

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Appendix A
EXPERIMENT 1A CHOICE OPTIONS

Imagine you could receive one of the following iPhone apps (none of which you currently own). All four apps are valued at \$1.99.

<i>Alarm Clock HD</i>	<i>ShopSavvy Barcode Scanner</i>	<i>Annie</i>	<i>iBeer</i>
Wake up to relaxing music, weather reports, and your favorite news!	Scan any barcode to instantly find the lowest online or local price!	Annie is a cute little girl! that repeats what you say in a silly voice!	Turn your iPhone into a hilarious virtual glass of beer you can drink from!
			
Unlimited alarms and settings	Tells you if the product is in stock at local stores	Singing by Daizy, a 3-year-old girl from the United Kingdom	Tilt your iPhone to pour the beer right into your mouth!
Built-in weather information	View shipping promos, coupons, rebates, and weekend sales	Change hair style, hair color, makeup, lipstick, and clothes	Drink beer, milk, water, cola, chocolate, champagne, wine, etc.
Automatically read the latest news from Google Reader	View local offers and Groupon of the day	Stunning real-time 3D graphics	Brew, drink, shake (foam), and burp!
Local notification alarms	Read product reviews and write your own	Advanced character physics including waving hair	Hilarious celebrity voices
Sleep timer	Instantly share products, prices, and lists with friends	Silky-smooth character motions with 100s of animation frames	Trick voice activation
Big, fully adjustable snooze buttons	If you find a deal, buy it directly from the merchant	Have fun experimenting with color and styles for Annie	Vending machine look
Brightness sliders	Search across multiple merchants	Gorgeous console-quality HD graphics	Live-camera view as background
Monitor your battery level from with the app	Search by keywords if barcode is not available	Voice-changing effects	Custom colors and backgrounds
Automatic integration with iPhone clock settings	Organize your searches in lists	Stroke Annie to tickle her, poke to annoy her.	Touchable bubbles, slime, and condensation

Appendix B
HEDONIC VERSUS UTILITARIAN LAPTOPS (EXPERIMENT 1B)

Laptops Built for Work		Laptops Built for Fun	
Option 1	Option 2	Option 3	Option 4
Acer Aspire 4570.pq	Fujitsu Lifebook CE-7630	Acer Aspire 4570.zn	Fujitsu Lifebook GT-7630
Επεξεργαστής πυρήνων 13-350M της	Επεξεργαστής πυρήνων 13-370M της	τυχαίες ιδιότητες	ακριβός μια ιδιότητα
5GB ΔΔΡ3 μνήμη συστημάτων	4GB ΔΔΡ3 μνήμη συστημάτων	σημαντικό χαρακτηριστικό γνώρισμα	ασήμαντο αντικείμενο
Κανένα ενσωματωμένο έκκεντρο Ιστού	Ενσωματωμένο έκκεντρο Ιστού	μια ακριβός ιδιότητα	τυχαίες ιδιότητες
Τρισδιάστατος προφήτης 9700 γραφική παράσταση	Γραφική παράσταση δύναμης 8400M	αντικείμενο ψήμαντο	Χαρακτηριστικό γνώρισμα
6 διαφορετικά χρώματα διαθέσιμα	Χρόμιο/ο Μαύρος	μέρη των χρωμάτων	κανένα χρώμα καθόλου
κρύσταλλο-φωτεινή επίδειξη 15 ίντσας	κρύσταλλο-φωτεινή επίδειξη 17 ίντσας	μόνο διασκέδαση όλη την ημέρα	νυχτερινή διασκέδαση
Ακραίος ακουστικός ήχος	Υγιής κμμοστρωτική μηχανή XM ήχος	αυτό που αφήνεται	μόνο ένα περισσότερο για να πάει
ασύρματος προσαρμοστής	ασύρματος προσαρμοστής και μπλε δόντι(ρ)	να πάει μόνο περισσότερο για	μέρη των χρωμάτων
Βραβευμένο σχέδιο	Ζαλίζοντας λείο σχέδιο	χρόνια πολλά	χρωμάτων των
ψηφιακή τηλεοπτική κίνηση	ψηφιακή τηλεοπτική	χρώμα κανένα καθόλου	συγχαρητήρια ο φίλος μου

Notes: The two-attribute condition included only the first and last rows of attributes.