

Thinking Inside the Box:  
Why Consumers Enjoy Constrained Creative Experiences

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## Thinking Inside of the Box: Why Consumers Enjoy Constrained Creative Experiences

### Abstract

From cooking kits to home improvement shows, consumers are increasingly seeking out products designed to help them be creative. In this research, the authors examine why consumers participate in creative activities and under what conditions these experiences are the most enjoyable. A qualitative study explores the diverse motivations for undertaking creative tasks and identifies the role of constraints in such endeavors. Two experimental studies are then used to understand the importance of constraints (i.e., instructional guidance, target outcomes) in facilitating a balance between perceived competence and autonomy for consumers involved in a creative task. When consumers engage in creative activities with both a sense of autonomy and competence, they enjoy the experience more. Implications for managers and opportunities for future research are discussed.

Since paint-by-number kits surged in popularity in the 1950s, consumers have sought out products designed to assist them in being creative. “Self-expression for the time deprived,” as a recent article in *Forbes* deemed the phenomenon, has created demand for products offered by firms ranging from specialty crafts (e.g., Martha Stewart) to home improvement (e.g., Lowes) (Rossant 1996). Between 2000 and 2002, Americans spent approximately \$29 billion on hobbies and crafts alone, making this sector one of the fastest growing areas of the economy (Craft and Hobby Association 2003). Among the many products offering constrained creative experiences are kits (e.g., model trains, needlepoint, paint-by-number), how-to guides (e.g., cook books, home repair, landscaping), and inspirational sources (e.g., home improvement programs, cooking shows, paint-your-own pottery stores). We consider these products as offering “constrained” creative opportunities because the products themselves explicitly constrain elements of the process (e.g., via a set of instructions) and/or of the outcome (e.g., with a visual representation of the end product). The recent sales growth in these categories suggests that consumers value these types of constraints, and a central objective of this research is to understand why.

Consumer researchers have both highlighted the need for more research on the topic of play (e.g., hobbies, leisure activities, and creativity) (Holbrook et al. 1984) and acknowledged the importance that such activities have on consumers’ self-esteem (Csikszentmihalyi 2000). Despite these implicit endorsements of the topic’s importance, little empirical work has examined playful activities in general (Kozinets et al. 2004) or, more specifically, has explored why products offering constrained creativity have become so popular with consumers. With little exception, the recent articles on creativity appearing in the marketing literature (e.g., Burroughs and Mick 2004; Dahl and Moreau 2002; Goldenberg, Mazursky, and Solomon 1999; Moreau and Dahl 2005) have focused on the factors determining the creativity of the *outcomes*. In these

articles, a set of independent judges is used to assess outcome creativity, with little emphasis placed on participants' subjective experiences<sup>1</sup>. Because the consumer's own satisfaction with their experience is likely to be a better predictor of future consumption than the opinion of an objective observer, we examine the effects of different constraints on the consumer's experience.

The goals of this research are first, to understand consumers' motivations for engaging in creative tasks and second, to examine how constraints influence the quality of those experiences. A qualitative study is used to address these goals. Two experiments then build on the qualitative results, offering the first experimental evidence documenting the conditions under which consumers enjoy creative activities. The experiments also measure and test specific mediators to explain *why* consumers enjoy such tasks and identify a key moderator, prior skill level, as a segmentation variable. By engaging participants in hands-on creative tasks rather than hypothetical scenarios, the experiments add more realism and allow for greater generalizability.

### *EXPERIENTIAL CREATION*

What constitutes a creative task? In this research, we broadly define experiential creation as the universe of activities in which a consumer actively produces an outcome. Such a definition allows for a continuum of creativity, ranging from extremely limiting cases in which a product is simply assembled (e.g., putting together an IKEA desk) to extremely creative cases in which the product is both conceptualized and realized (e.g., painting an original picture). Constrained creative experiences fall within this range. Two critical factors vary across these activities to determine the level of creative thought required by the consumer: 1) the extent to which a target outcome is dictated (e.g., the outcome of the creative task is either given by the product, as with

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<sup>1</sup> Prior work has examined experiential consumption (e.g., Holbrook and Hirschman 1982; Holbrook et al. 1984; Holt 1995; Kozinets et al. 2004; Penaloza 1999; Sherry 1998), yet it has largely focused on how consumers interact with products in which the "consumption object is controlled by others" (Holt 1995, p.7). Specifically, these studies

IKEA, or it must be generated by the consumer, as with an original picture) and 2) the amount of instruction or direction available (e.g., the task is either guided by instructions, as with a cookbook, or it is unguided, as with a reproduction of a known example). Figure 1 highlights the different types of creative products/activities and how they vary along these two dimensions.

-- insert Figure 1 about here --

### *STUDY 1*

The goal of this qualitative study is to understand both consumers' motivations in undertaking creative tasks and the influence of constraints on those experiences. Data were collected using semi-structured interviews to provide consistency in discussion across creative domains. Twelve interviews were conducted with informants representing eight different hobby areas (scrap-booking, modeling, cooking, jewelry-making, card-making, sewing, carpentry, and quilting).<sup>2</sup> Each interview was taped and transcribed. After each interview was conducted, the data were analyzed to ensure that the ensuing interviews would reflect any additional relevant issues that were raised (Corbin and Strauss 1990).

Informants were recruited using advertisements placed at hobby stores in a major North American city. The interviews lasted from 30 to 60 minutes and were conducted at the informant's home or place of business. Informants were eight women and four men, ranging in age from 20 to 62. Their occupations indicated a wide range in socioeconomic status including accountant, teacher, student, engineer, librarian, administrator, full-time mother, and carpenter.

#### *Data Analysis*

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have examined consumers' experiences interacting with video games, professional baseball games, ESPN Zone Chicago, and Nike Town Chicago.

<sup>2</sup> A recent Sage Publication entitled "How Many Interviews Are Enough? An Experiment with Data Saturation and Variability" (Guest, Bunce, and Johnson 2006) found "that saturation occurred within the first twelve interviews, although basic elements for meta-themes were present as early as six interviews" (p.59).

Informants' responses were analyzed following a constant comparative technique (Strauss and Corbin 1998). First, the authors read the transcripts, noting specific themes in the data. Each discussion was first analyzed with open coding in order to identify the different types of responses or themes that appeared. Second, the researchers engaged in an independent process of axial coding to identify common patterns and connections between the first set of codings. Through joint discussions and iterative referrals to the creativity literature, we reached consensus and also ensured that each factor or theme appeared in the data repeatedly to achieve concept saturation (Glaser and Strauss 1967; Kirmani and Campbell 2004; Wallendorf and Belk 1989).

### *Findings*

*Basic motivations for undertaking creative tasks.* Table 1 lists the seven different motivations that emerged from the data. The first and most frequently mentioned motivations were those of *competence* and *autonomy*, both underlying factors contributing to a consumer's private sense of accomplishment. When asked why he participated in this hobby, the model plane builder responded simply, "There's a sense of accomplishment...look at what I've created from start to end." In Table 1, other examples of these motivations are presented which also demonstrate how competence (e.g., completing the task successfully) and autonomy (e.g., customizing the design) work together to create an overall sense of personal accomplishment. More discussion time was spent on these two motivations than on each of the other five.

-- insert Table 1 about here --

*Learning* how to improve on a skill set also serves as an important impetus for participation in the hobby. As the card-maker explained, "I'll do exactly what I'm told to do when I go to a class because I want to learn how someone else does it." Learning opportunities

enable the individual to develop a more refined set of skills and techniques. Interestingly, learning often involves a community of fellow crafters, meeting a social need as discussed later.

In contrast to the private sense of accomplishment, derived largely from the creative outcome, the motivation for *relaxation and engagement* appears to be process-related. For many of the informants, the process was engrossing but simultaneously relaxing, freeing their minds from other concerns of the day. The hobbies also appear to create or reinforce the hobbyist's own *sense of identity*. For many, the hobby allows them to attribute certain characteristics to themselves (e.g., "I am creative") by providing self-reflective feedback.

Closely related is the motivation for a *public sense of accomplishment*. Informants cited examples of positive feedback from peer hobbyists, appreciation from gift recipients, and admiration from friends and family as important outcomes of the creative process. A hobbyist *community* also provides a forum for public accomplishment, but beyond that, the community provides a set of people with uniquely common interests, the final key motivator for many of our informants. Even though several hobbyists mentioned that they wouldn't normally socialize with the people in their hobbyist groups, they found the companionship invaluable. As one of the modelers described it, "I've been to a couple of regional shows. Very enjoyable. You go down with 3-4 guys, watch it together, have a few drinks afterwards. It's an escape."

More examples of each of these motivating factors are provided in Table 1, and there are clearly strong connections among the motivations. For example, the community provides learning opportunities that help improve hobbyists' skills and knowledge. These enhanced skills, in turn, increase hobbyists' private and public senses of accomplishment. Taken together, the qualitative data provide a richer understanding of the real-world motivations underlying consumers' decisions to participate in creative pursuits. In the following section, we examine

how external constraints imposed by creativity products influence these motivations, both positively and negatively.

*The pros and cons of external constraints.* Almost exclusively, the informants discussed how creativity products (e.g., kits, how-to guides) affect their private sense of accomplishment. The tension and trade-offs between competence (e.g., instructional guidance) and autonomy (e.g., creative freedom) associated with the creative products were highly salient to the hobbyists, dominating the bulk of the discussions on the topic of constraints. Table 2 summarizes the pros and the cons, providing multiple examples of each.

---- insert Table 2 about here ----

Pros. Across the hobbies, four major advantages were reported for creativity products (e.g., kits, models, patterns, and recipes). Interestingly, all four advantages served to improve the hobbyist's sense of competence (see Table 2). The creativity products enabled the informants to complete a creative task with greater ease and/or less time. In many cases, these products enabled people to accomplish their creative goals even with low levels of task-relevant skills. These products also gave respondents more confidence or assurance regarding the outcome of their project. As the cook noted, "If you have a picture and a recipe, you're pretty well guaranteed that it will come out looking like that and taste what you think it's going to taste like." Finally, the products helped consumers develop hobby-related skills, again reinforcing their sense of competence.

Cons. Three consistent disadvantages to the creativity products emerged across the different activities. Informants cited the lack of freedom in the process and lack of uniqueness of the outcome as the primary drawbacks to kits, patterns, models and recipes (see Table 2). Both of these factors limit the consumers' autonomy. Informants also were critical of the creativity

products that offered tasks which did not match their own skill level. As one of the modelers put it, “You don’t want it <the kit> too simple; you don’t want it too hard. If it’s too hard, you just spend months and months on it.” This factor mirrors the ease and efficiency factor and is largely an indicator of perceived competence.

### *Discussion*

This qualitative study illuminates individuals’ diverse motivations for undertaking creative tasks and how constraints influence those experiences. The two motivations discussed most frequently, competence and autonomy, were also the two most affected by the constraints imposed by kits (i.e., instructions and target outcomes). Creativity products across the differing hobbies were shown to provide the needed guidance (and often, raw materials) necessary to competently complete a creative task in a reasonable time. The creativity products also reduced perceived autonomy but allowed sufficient opportunity for customization and improvisation of the process and/or the outcome.

These findings suggest the relevance of cognitive evaluation theory (CET) for further study of consumers’ creative experiences (Deci and Ryan 1985; Ryan and Deci 2000). CET is a contemporary motivational theory that investigates “people’s inherent growth tendencies and innate psychological needs that are the basis for their self-motivation” (Ryan and Deci 2000, p. 68). The theory is highly relevant for our examination of creative experiences because it focuses specifically on the two important determinants of self-motivation identified in our qualitative study, the needs for autonomy (deCharms 1968) and competence (Harter 1978). CET defines the need for autonomy as people’s desire to feel that they are the originator of their own actions; it is a need for self-governance, volition, choice, and a self-organized experience (deCharms 1968; Ryan and Deci 2000; Sheldon and Elliot 1999). In the context of a creative task, these choices

and self-organization also encompass a need for self-expression. CET describes the need for competence as an individual's desire "to interact proficiently or effectively with their environment" (Kowal and Fortier 1999, p. 358). Interestingly, the two needs do not necessarily influence intrinsic motivation independently. In a creative context, the same factors that are designed to increase perceptions of competence (e.g., instructions and a target outcome) may ironically *decrease* perceptions of autonomy, choice, and self-expression.

#### *EXTERNAL CONSTRAINTS AND THE CREATIVE EXPERIENCE*

The primary benefit offered by many of the creativity products on the market is external guidance. These products typically come with instructions and may also come with a picture of the target outcome. These external constraints, which dictate both the process and outcome, help non-professional artists, builders, bakers, landscapers, or hobbyists participate in creative activities even if they lack a high level of knowledge or skill in the area. "Simply stated, hobby kits, like paint by number, functioned as a compromise between genuine creativity and the responsibilities of homemaking and earning a living" (Bird 2001, p. 17). How do the constraints offered by these kits influence perceptions of competence and autonomy?

#### *Competence*

Creative products (e.g., kits) offering well-specified instructions should increase consumers' perceptions of competence during a task because they inform the person about the appropriate plan for completion, saving the individual the time and effort of learning and/or developing the rules on their own. Consumers are likely to feel proficient, even the first time through a task, when such guidance is provided.

Some kits also provide a picture of what the outcome should look like. By acting as a concrete reference, a target outcome may increase perceptions of competence by providing

visual information useful in developing an appropriate plan for task completion. The consumer may be able to infer a set of steps that will enable competent completion of the project by simply looking at the target. When such a target is provided with instructions, however, the positive influence of the target on perceived competence would likely be reduced because the visual instructional information provided by the target is likely to be partially redundant with the information in the written instructions.

The target also provides feedback on each action taken towards achieving the goal, critical information for assessing competence. When a component of the task is successfully achieved (e.g., the shape of the consumer's holiday cookie matches the one from Martha Stewart's kit), consumers' perceptions of competence increase. However, when a component of the task is not successfully achieved (e.g., the shape of the cookie bears little resemblance to that on the box), perceptions of competence decrease. Because the target outcome could be made more or less difficult to achieve, its effect on perceived competence would clearly depend on the level of difficulty presented by the task. In fact, many creativity products that do provide target outcomes offer them at various levels (beginning, intermediate, advanced). In this research, participants are given a target outcome that was pre-tested to be challenging. Thus, the feedback derived from the target outcome will likely decrease perceptions of competence.

We hypothesize an interaction between the instructions and target outcome factors for perceived competence. When instructions are provided, but no target outcome is dictated, perceived competence should be significantly greater than in each of the other three conditions. In this condition, perceived competence is enhanced by the provision of step-by-step instructions and will not be diminished by the negative feedback which could arise from a comparison to the kit's ideal target. When such a target is provided, however, the negative feedback would likely

reduce perceived competence. Further, the potential offsetting positive effect of enhanced guidance offered by a target outcome would be minimized due to its redundancy with the instructional information. Taken together, this reasoning leads to the following hypothesis:

- H1:** When instructions are provided and no target outcome is dictated, perceived competence will be higher than when no instructions are provided and/or a target outcome is given.

### *Autonomy*

When a target outcome is provided, the consumer is discouraged from expending the cognitive effort to visualize or imagine what that outcome might be. Rather, consumers are effectively being told what to make and that there is a “right” outcome. This type of pressure to attain a specific outcome may make the locus of causality an external one (Shalley and Perry-Smith 2000). Under these conditions, there is a likely decrease in perceived autonomy. Similarly, instructions are likely to decrease perceptions of autonomy since the instructions reduce individuals’ perceptions of self-governance, choice, and a self-organized experience.

For autonomy, we also predict an interaction between the two external constraints because there will likely be a negative synergy when the two are active simultaneously. When instructions are provided and a target outcome is dictated, participants have very little opportunity for volition, choice, and a self-organized experience. However, when given a target outcome in the absence of instructions, participants can determine their own way of achieving the outcome based on visual information; when given instructions in the absence of a target outcome, participants can choose how their own outcome will look. In either of these two cases, relaxing one of the two constraints should enhance perceived autonomy. Clearly, relaxing both constraints will also enhance autonomy over the two-constraint condition. More formally,

- H2:** When instructions are provided and a target outcome is dictated, perceived autonomy will be lower than when no instructions are provided and/or no target outcome is given.

### *External Constraints and Enjoyment*

The previous section highlights how external constraints are expected to influence the motivational antecedents differently. Specifically, a constraint that enhances perceptions of competence, such as instructions, may also decrease perceptions of autonomy. Motivation researchers theorize that only when perceptions of competence are accompanied by perceptions of autonomy will intrinsic motivation be enhanced (Fisher 1978; Ryan 1982). Such a balance is likely to be best achieved when instructions are provided without a target outcome. In this condition, consumers are allowed to imagine and create a unique outcome (autonomy) but know how to complete the task (competence). Thus,

- H3:** When instructions are provided and no target outcome is dictated, overall task enjoyment will be higher than when no instructions are provided and/or a target outcome is given.

## *STUDY 2*

### *Design and Procedure*

Two factors were manipulated between-subjects: (1) instructions (step-by-step instructions with tool descriptions vs. tool descriptions only) and (2) target outcome (picture of final product provided vs. no picture). The inputs for the creative task were held constant across all conditions. Thus, the design was a between-subjects 2 X 2. Participants were 100 undergraduates from a large northwestern university who participated in this study for course credit. Participants were randomly assigned to one of the four conditions and were run in groups of 2-5. Upon arrival, each participant was seated at their testing station (see Appendix A) which contained a set of tools, pre-made cookie dough, and pre-made white icing. At that point, both

experimental manipulations occurred. Those in the “no instructions” condition were given the following verbal instructions and a listing of the ingredients and tools provided (Appendix B):

“Your workstation includes all of the ingredients and tools you will need to make a cookie. Once you are ready for baking, please signal the experimenter. When the cookie has baked, it will be returned to you for decoration.”

Those in the “instructions” condition were given the same set of verbal instructions and the tool listing. Additionally, they were provided with written step-by-step directions detailing how to correctly utilize tools and ingredients at each stage of the cookie making process. The instructions covered all aspects of the process: rolling and cutting the dough, baking and decorating the cookie. Participants were not required to use all of the ingredients or tools.

A picture of a decorated cookie was used to manipulate the target outcome. Participants assigned to the target outcome condition were given a color picture of a decorated cookie and instructed to make that cookie (Appendix C). Participants in the condition with no target outcome were simply told to make a cookie.

In all of the conditions, participants had exactly the same set of tools and ingredients. The RAs weighed out the dough and carefully measured the specified amount of icing and decorations for each participant. The dough and the icing were made fresh each morning, and the three convection ovens and the tools were cleaned after each experimental session.

After finishing the cookie making process participants were asked to complete a survey instrument that contained the dependent variables of interest. The enjoyment construct was measured first and was followed by demographic questions and the measures of competence and autonomy. Upon completion participants were debriefed and thanked.

### *Dependent Measures*

*Competence.* Four items were used to measure this construct. On four nine-point scales, participants reported the extent to which they felt smart, competent, talented, and intelligent while performing the task. All items loaded on a single, distinct factor, and the items were summed to create an overall competence index (Mean = 21.9; Range: 4 to 36;  $\alpha = .88$ ).

*Autonomy.* Autonomy was also measured using four nine-point scales to capture how free participants felt to make choices and express themselves during the task and also how controlled and pressured they felt (reverse-scored). All items loaded on a single factor and were summed to create an autonomy index (Mean = 23.4; Range: 4 to 36;  $\alpha = .78$ ).

*Task enjoyment.* Task enjoyment was measured using six nine-point scales. Participants reported the degree to which they enjoyed and had a good time during the creative process, how fun and satisfying the process was, and how annoyed and frustrated they felt during the task (reverse scored). Again, all items loaded on a single, distinct factor and were summed to create an enjoyment index (Mean = 41.2; Range: 6 to 54;  $\alpha = .94$ ).

## *Results*

*Competence.* A two-way ANOVA was used to test hypothesis 1 with instructions and target outcome serving as the two independent factors. No significant main effects emerged, but the results did reveal the predicted interaction ( $F(1, 99) = 4.46, p < .05$ ; see Figure 2a). As expected, when instructions were provided without a target outcome, participants reported the highest levels of competence ( $M_{\text{instructions, no target}} = 24.4$ ), a level significantly different than participants in the other three cells ( $M_{\text{instructions, target}} = 19.9$ ;  $M_{\text{no instructions, target}} = 21.4$ ;  $M_{\text{no instructions; no target}} = 21.1$ , all  $p$ 's  $< .05$ ).

-- insert Figure 2 about here --

*Autonomy.* A two-way ANOVA revealed a significant interaction ( $F(1, 99) = 4.46, p < .05$ ; Figure 2b), providing support for hypothesis 2. As predicted, perceived autonomy was at its lowest when both instructions and a target outcome were provided ( $M_{\text{instructions, target}} = 15.4$ ), a level significantly different from those in the other three cells ( $M_{\text{no instructions, target}} = 19.7$ ;  $M_{\text{instructions, no target}} = 26.4$ ;  $M_{\text{no instructions, no target}} = 25.5$ , all  $p$ 's  $< .05$ ). The results also revealed a main effect showing that the provision of a target outcome decreased perceived autonomy ( $F(1, 99) = 37.47, p < .001, M_{\text{no target outcome}} = 25.9$  vs.  $M_{\text{target outcome}} = 17.8$ ).

*Task enjoyment.* A two-way ANOVA was also used to test Hypothesis 3 and revealed the predicted interaction ( $F(1, 99) = 6.82, p < .01$ , see Figure 3). When no target outcome was given, participants receiving the full set of instructions reported *higher* levels of enjoyment than those receiving no instructions ( $M_{\text{instructions, no target}} = 44.0$  vs.  $M_{\text{no instructions, no target}} = 38.7, p < .05$ ). Participants in this condition also reported higher levels of enjoyment than those receiving a target outcome and instructions ( $M_{\text{instructions, no target}} = 44.0$  vs.  $M_{\text{instructions, target}} = 37.6, p < .05$ ). Interestingly, however, participants receiving a target outcome with no instructions also reported relatively high levels of enjoyment ( $M_{\text{no instructions, target}} = 42.4$  vs.  $M_{\text{instructions, no target}} = 44.0, ns$ ). Apparently the mix of constraints in this condition (no instructions/target outcome provided) also achieves a balance of competence and autonomy that is satisfying for the consumer.

-- insert Figure 3 about here --

We performed mediation tests (Baron and Kenney 1986) to determine the influence of competence and autonomy on overall task enjoyment. For competence, each of the four requirements for mediation was met. First, the two independent factors interacted to predict competence. Second, the two independent factors also interacted to predict task enjoyment. Third, when competence was added to this model as a covariate, it was significant ( $F(1, 99) =$

39.22,  $p < .0001$ ). Fourth, in this same model, the interactive effect of the independent factors became non-significant ( $F(1, 99) = 2.95$ ,  $p > .10$ ; Sobel = -2.01,  $p < .05$ ).

For autonomy, the first three requirements were also met, indicating partial mediation (Baron and Kenney 1986). However, adding autonomy as a covariate in the model predicting enjoyment did not completely erode the significance of the interaction; it only reduced it (Sobel = -1.74,  $p = .08$ ). Thus, whereas autonomy is an important factor influencing overall enjoyment of the creative task, perceived competence provides stronger explanatory power of the route through which the manipulated factors influence perceived task enjoyment.

### *Discussion*

These findings highlight the importance of balancing perceptions of competence with perceptions of autonomy to enhance overall task enjoyment. Ironically, it was not the overall goal of the task (“make any cookie” vs. “make this exact cookie”) that drove participants’ enjoyment of the task. Rather, it was the extent to which participants experienced a balance between autonomy and competence. Those receiving no target outcome and a set of instructions had both the ability to successfully follow task guidance (competence) and the freedom to create an individualized design (autonomy), resulting in higher levels of task enjoyment.

On a broader scale, the results from Study 2 are the first to empirically examine the relationship between task enjoyment and its motivational antecedents, perceived competence and autonomy. By using an experimental approach to examine consumers engaged in an actual creative task, this study also sheds insight into how the constraints offered by certain creative products influence consumers’ overall experience. Like the manufacturers of paint by number kits fifty years before, in this study we assumed no level of prior experience in our study participants. Through randomization, we effectively mitigated any effects that such differences

in skill would have on task enjoyment and outcome satisfaction. However, prior skill levels are likely to have an important influence, not only on one's likelihood of purchasing a product offering constrained creativity, but also on the likelihood of enjoying the experience offered.

*THE INFLUENCE OF SKILL LEVEL AND EXTERNAL CONSTRAINTS  
ON PERCEIVED COMPETENCE AND AUTONOMY*

Numerous studies have demonstrated that those with greater skill at a particular task are better able to use their own internal knowledge as a source of guidance than those with lower levels of skill (see Alba and Hutchinson 1987; Sanbonmatsu, Kardes, and Herr 1992). For consumers who undertake creative activities as hobbies rather than careers, products offering constrained creativity offer an alternative to this time-consuming and all-encompassing approach. Nonetheless, there is likely to be a variance in consumers' existing skill levels when they engage in these creativity tasks. Even in this non-professional arena, those with higher skill are also likely to be better equipped to provide their own guidance and feedback than those with less skill. When a task offers them the freedom to follow their own internal guidance, more highly skilled people are likely to enjoy a task more than those with lower skill levels. We look to the motivational antecedents of competence and autonomy again to explain this prediction.

*Competence*

Several factors can affect the difficulty of the creative task. First, marketers may offer a range of target outcomes from the simple to the advanced. Second, the presence of a target outcome itself can affect how challenging a creative task is deemed to be. When a target outcome is not offered, consumers are required to complete an additional cognitive step: design a unique outcome. In our experiments, we control for the first factor by holding constant the level

of difficulty of the target. We manipulate the second factor via the presence or absence of a target thereby manipulating the number of steps requiring cognitive thought.

When no target outcome is provided, skilled bakers would likely need to devote fewer cognitive resources towards physically cutting out and baking the cookie than non-skilled bakers, leaving more resources available for imagining and designing their own cookie. Non-skilled bakers, however, may not have these excess resources available, and thus, may be overwhelmed with the full set of task demands. Under these conditions (and with step-by-step instructions provided for all participants), participants with higher skill levels should report higher perceptions of competence than those with lower skill levels.

If a target outcome is provided, however, consumers of all skill levels face fewer cognitive tasks because the target outcome is given. Thus, the effect of skill-based differences on perceived competence should be significantly reduced in this less stringent cognitive task. Participants' perceptions of competence will be subjected to the potential negative effects of feedback provided by a challenging target outcome and are consequently likely to be lower. Indeed, people of all skill levels will be novices at producing the specific, novel target outcome provided in this research.<sup>3</sup> As such, the target solution may provide relatively equally-valenced feedback to people of both high and low skill levels. Thus, we expect that perceptions of competence will be lower for people who receive a target outcome than for those who do not. Further, we expect that competence perceptions will be less influenced by overall skill level when the target is present. Taken together, this theorizing leads to the following hypothesis:

**H4:** When no target outcome is provided and skill levels are high, perceived competence will be higher than when a target outcome is provided and/or skill levels are low.

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<sup>3</sup> Both skilled and unskilled members of the sample population rated the creative task equally difficult when a target outcome was provided ( $M_{\text{high skill}} = 12.9$  vs.  $M_{\text{low skill}} = 12.0$ , n/s). When no target was provided, those with high skill viewed the task as less difficult than those with low skill ( $M_{\text{high skill}} = 10.7$  vs.  $M_{\text{low skill}} = 15.1$ ,  $p < .01$ ).

### *Autonomy*

In Study 2, the provision of a target outcome decreased perceptions of autonomy, regardless of whether instructions were provided or not. We expect that main effect to be evident in this study as well. A more interesting question, however, is how existing skill levels interact with external constraints (e.g., a target outcome) to influence perceptions of autonomy. Since those with higher skill levels will have more resources available to visualize their own solutions, they should report higher levels of autonomy when given the opportunity to imagine their own outcome (e.g., when no target outcome is provided). Conversely, when a target outcome is provided, its presence may reduce the perceived autonomy of high skill participants more than that of low skill participants, given their greater ability to generate numerous outcomes.<sup>4</sup> Effectively, the presence of a target outcome might stifle the autonomy of a skilled person more than that of an unskilled one. Thus, we predict:

- H5:** When no target outcome is provided, higher skill levels will lead to *higher* levels of perceived autonomy. When a target outcome is provided, higher skill levels will lead to *lower* levels of perceived autonomy.

### *Task Enjoyment*

Thus far, we have predicted that more highly skilled people will feel both more competent and more autonomous than their lesser skilled counterparts when no target outcome is provided. When a target outcome is provided, the advantage in competence for the higher skilled people is expected to disappear. More dramatically, the advantage in autonomy is likely to be reduced to a level below that of the lesser skilled people. Thus:

- H6:** When no target outcome is provided and skill levels are high, task enjoyment will be higher than when a target outcome is provided and/or skill levels are low.

## *STUDY 3*

### *Design and Procedure*

The Study 2 baking task was used as the creative task with the following changes. First, only one factor (target outcome) was manipulated between-subjects. All participants were provided full instructions. Second, prior baking skill was measured and dichotomized to create a high and a low skill group. Third, across all conditions, each participant had to roll out, cut, and bake a cookie shaped like the one in Appendix C and were given instructions to do so. Thus, the target outcome manipulation only related to the decorating of the cookie (i.e., “decorate it in any way you would like vs. decorate it exactly like this one”). Participants were 112 undergraduates from a large northwestern university who participated in the study for course credit.

### *Measures*

Baking skill was measured prior to the task using a three-item scale. Participants reported how frequently they baked and the extent to which they were a good baker and a better cook than most of their peers ( $\alpha = .90$ ). Competence, autonomy, and task enjoyment were measured using the same scales reported in study 2.

### *Results*

*Competence.* A two-way ANOVA was used to test hypothesis 4. Though no main effects emerged, there was a significant interaction between skill level and target outcome ( $F(1, 111) = 5.34, p < .05$ ; see Figure 4). As predicted, when no target outcome was provided, participants with high skill levels reported higher levels of competence than those with low skill levels ( $M_{\text{high skill}} = 27.4$  vs.  $M_{\text{low skill}} = 20.8, p < .01$ ). Participants in this condition also reported higher levels of competence than those in the two conditions who received a target outcome ( $M_{\text{high skill, target}} = 21.2; M_{\text{low skill, target}} = 22.1, \text{both } p\text{'s} < .05$ ).

-- insert Figure 4 about here --

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<sup>4</sup> We thank one of our anonymous reviewers for pointing out this possibility.

*Autonomy.* A two-way ANOVA was also used to test Hypothesis 5. Consistent with the study 2 findings, the provision of a target outcome decreased perceived autonomy ( $F(1, 111) = 6.75, p < .01, M_{\text{no target outcome}} = 19.2$  vs.  $M_{\text{target outcome}} = 16.3$ ). A main effect of skill level also emerged from this analysis, with high skill levels positively related to higher perceptions of autonomy ( $F(1, 111) = 4.41, p < .05, M_{\text{high skill}} = 19.0$  vs.  $M_{\text{low skill}} = 16.4$ ). The two independent factors, however, did not jointly influence perceived autonomy. Thus, these findings provide only partial support for hypothesis 5 as perceived autonomy was higher for skilled versus unskilled participants when no target outcome was provided. However, the identified main effect for skill level directly contrasted our expectation that the provision of a target outcome would lower perceived autonomy for highly skilled individuals. Skilled participants felt more autonomy than unskilled participants when a directed outcome was provided. It is possible that these skilled participants realized autonomy by creating their own process for realizing the target. An opportunity for future research lies in further exploring this unexpected outcome.

*Task enjoyment.* A two-way ANOVA was also used to test hypothesis 6. An interaction between the skill level and target outcome was significant ( $F(1, 111) = 4.35, p < .05$ ; see Figure 5) as well as an unanticipated main effect of skill level ( $F(1, 111) = 6.02, p = .01$ ). The interaction was consistent with hypothesis 6, and the main effect was consistent with our unexpected findings for autonomy. When no target outcome was provided, participants with higher skill levels reported higher task enjoyment than those with lower skill levels ( $M_{\text{high skill}} = 43.7$  vs.  $M_{\text{low skill}} = 35.3, p < .01$ ). These participants also reported higher enjoyment than the two groups receiving a target outcome ( $M_{\text{high skill, target}} = 40.0; M_{\text{low skill, target}} = 39.3, \text{ both } p\text{'s} < .05$ ).

-- insert Figure 5 about here --

To better explain the pattern of task enjoyment, mediation tests (Baron and Kenney 1986) were again conducted separately for competence (for the interaction) and for autonomy (for the main effect). Similar to Study 2, each of the four requirements for mediation were met for competence. First, as described above, the two independent factors interacted to predict competence. Second, the two independent factors also interacted to predict task enjoyment. Third, when competence was added as a covariate to the model predicting enjoyment, it was significant ( $F(1, 111) = 12.45, p < .001$ ). Fourth, with competence as a covariate, the interactive effect of the independent factors became non-significant ( $F(1, 111) = 2.10, p > .10$ ), as did the main effect of skill level ( $F(1, 111) = 3.44, p > .05$ ; Sobel = -1.95,  $p = .05$ ).

For autonomy, the first two requirements were met. Skill level was positively related to both perceived autonomy and task enjoyment. However, when perceived autonomy was added as a covariate to the model predicting enjoyment, it was not significant, and there was no significant decrease in the relationship between skill level and enjoyment (Sobel = .43,  $p > .10$ ). One reason that autonomy may not have mediated the relationship between skill level and enjoyment is that skill level may be correlated with other factors predicting task enjoyment (e.g., interest in baking; enjoyment of cookies). In summary, while the independent factors in this study did have significant influences on both autonomy and competence, it was only perceptions of the latter that appeared to explain the pattern of task enjoyment.

### *Discussion*

The results of this study have implications for manufacturers hoping to capitalize on consumers' desire for a "somewhat individual" outcome constructed on their own. This study demonstrates that prior skill level may be a critical segmentation variable. Those with low skill levels were able to achieve comparable levels of perceived competence and task enjoyment as

those with high skill levels if a target outcome was dictated. Under these conditions, people of all skill levels had similar perceptions of perceived task difficulty. According to Bird, paint-by-number kits were “mass appeal items without limitations for age and sex” and were “tested and retested to ensure than anyone with the patience to complete the painting would achieve the same result – while earning the distinction of having painted it oneself” (2001, pp. 41 and 47).

For those with higher skill levels, products allowing for some customization of the outcome appear to be more preferable. Allowing skilled consumers to imagine and realize a unique solution, while at the same time offering the materials and some guidance, maximized both their perceived competence and task enjoyment. For these customers, perceptions of competence and autonomy declined significantly when a target outcome was specified, and consequently, task enjoyment declined as well.

Interestingly, the target outcome manipulation used in study 3 did not provide for a full replication of the effects on task enjoyment found in study 2. Recall that in study 2, participants in the “no target” condition were given the freedom to roll out and cut the dough into any shape they liked and were also allowed to decorate it in any fashion. In study 3, however, all participants were forced to cut out a cookie of the same shape (Appendix C), but those in the “no target” condition could decorate it however they liked. This more limited autonomy did influence the pattern of results. In study 2, the target outcome manipulation significantly influenced participants who received full instructions ( $M_{\text{no target}} = 44.0$  vs.  $M_{\text{target}} = 37.6$ ,  $p < .05$ ), yet in study 3, there was no such effect when enjoyment was averaged across the low and high skilled bakers ( $M_{\text{no target}} = 39.5$  vs.  $M_{\text{target}} = 39.7$ , n/s).<sup>5</sup> Thus, the magnitude of the outcome constraint itself appears to influence overall task enjoyment.

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<sup>5</sup> We thank one of our anonymous reviewers for suggesting this comparison.

Other results are also likely dependent on the stimuli chosen for these studies. For example, if the target outcome were made more or less difficult, the valence and amount of feedback provided to the participant would likely change and influence perceptions of competence; conversely, if the instructions varied in their helpfulness or in their level of control, the effects on both competence and autonomy would differ. What remains consistent across both studies, however, is that when external constraints facilitate a sense of competence together with a sense of autonomy, task enjoyment is enhanced. These findings are consistent with CET, long hypothesized to be an appropriate theoretical base for examining creative experiences.

### *GENERAL DISCUSSION*

Since Guilford advocated a research agenda on creativity in his landmark article in *American Psychologist* (1950), the study of creativity has received growing attention from researchers across academic disciplines. Yet according to Sternberg and Dess (2001), “we do not know enough about this important psychological process” (p.332). Certainly this statement also applies to our understanding of consumers’ creative experiences. While restricted in its scope, our research initiates a more thorough examination of consumers’ creative experiences.

#### *Theoretical Contributions*

In our research, we use a combination of qualitative research and cognitive evaluation theory to better understand why consumers participate in creative activities and the conditions under which they enjoy these experiences. Our qualitative study provides a broad understanding of the motivations underlying creative pursuits across a wide domain of activities. Respondents consistently noted a motivation for personal accomplishment which was achieved by satisfying the needs of both autonomy and competence. Other motivations included the desires for learning, engagement and relaxation, self-identity, public accomplishment, and community. Importantly,

this study also provides insight into the influence of external constraints (e.g., target outcomes, instructions) on consumers' creative experiences. Indeed, the pros and cons of these creative products (e.g., kits, models, patterns, and recipes) highlight the tension between consumers' desire for instructional guidance and their need for individualism. Hobbyists value the feeling of competence which creative products provide, and they create their own strategies to overcome the constraints which such products impose on both the creative process and the outcome.

The subsequent two studies offer the first experimental evidence documenting the conditions under which consumers enjoy creative activities. Using the central themes of competence and autonomy identified in the initial interviews, the second study explicitly tests the roles that constraints play in the creative experience. Interestingly, this study shows that participants receiving a set of instructions without a target outcome had both sufficient guidance to complete the task successfully (competence) and the freedom to create an individualized design (autonomy). This combination resulted in higher levels of task enjoyment, confirming the ideas forwarded in Study 1.

The final study identifies an important moderator of the creative experience, prior skill level. In this experiment, skilled consumers reported higher perceptions of competence when fewer constraints were active. Indeed, participants with previous baking experience were shown to enjoy the creative task more when a target outcome was not imposed upon them. These findings clearly have implications for marketers attempting to capitalize on consumers' growing interest for creative products. Defining the correct balance of product constraints and making appropriate segmentation decisions are critical in addressing consumers' motivations that underlie their need for creative expression.

#### *Limitations and Future Research Opportunities*

As noted previously, a central limitation of the current research is inherent in the methodologies employed. The experiments conducted necessitated specific choices with respect to a creative task and the constraints examined. Further, the sample populations for these studies were not actual bakers or cooking hobbyists, but rather, were student participants seeking class credit for their involvement. The qualitative nature of the in-depth interviews conducted in the first study also was limited in its representativeness and generalizability to broader populations.

These limitations provide a number of directions for future investigation; foremost are the opportunities created by the specific nature of our experimental manipulations. It is likely that changes to the type of target and content of the instructions would affect the patterns of results for both competence and autonomy. Future research should assess how different types of target outcomes and forms of instruction impact the identified effects. For example, in our experimental studies the chosen target outcome manipulation was challenging in nature - how would the results change if the target outcome were easier to realize? How does the perceived attractiveness of a target outcome impact the consumer's motivation? It is likely that the attractiveness of the target outcome is a moderating force that influences consumers' intentions to purchase the creative product, their desire to customize or alter the outcome, their enjoyment of the process, and their overall satisfaction with the outcome. Detailed versus sparse instructional guidance is also likely to motivate different consumer reactions (e.g., ignoring the instructions, feelings of frustration) and to have differential effects on perceptions of competence, autonomy, and enjoyment. Future research should be directed towards identifying the boundary conditions and enhancing the proposed theoretical framework by testing different characteristics and combinations of these outcome and process constraints.

More broadly, a number of research opportunities are seeded in the qualitative interviews conducted in Study 1. Specifically, dialogue with respondents revealed a number of creative consumption motivations that remain to be explored. While we confirmed the importance of autonomy and competence in our experimental studies, it is possible that other motivations were also responsible for the enjoyment participants experienced in completing the experimental task. For example, recall that in Study 2, high levels of enjoyment were realized when a target outcome and no instructions were provided. In this situation, other motivations, such as a desire to learn and become more proficient in the task may have also facilitated enjoyment for participants in this situation. Private motivations (e.g., learning, relaxation) and public ones (e.g., sense of community, public sense of accomplishment) clearly exist for individuals that pursue creativity products. How each of these motivations is fulfilled, both independently and jointly, in the context of consumer creativity remains to be explored.

Finally, future research should also investigate how other individual differences (beyond skill) influence consumers' creative experiences. For example, Chiu, Hong, and Dweck (1997) distinguish between people who are *entity* theorists and those who are *incremental* theorists. While entity theorists view their own failures as an indicator of their own chronic abilities, incremental theorists have a greater tendency to ascribe their failures to situational effects (Chiu, Hong, and Dweck 1997). How this distinction influences perceptions of personal achievement in creative tasks (via competence and autonomy) and desire for different types of tasks (e.g., challenging vs. not so challenging) would be an interesting area for future research. It would also be interesting to examine how this distinction influences the relationship between perceived task performance and the other motivational antecedents (e.g., self-identity).

It is our hope that the current research provides a rationale and stimulus for future investigation into why consumers need creativity in their consumption and how these creative activities are best articulated.

**TABLE 1**

## Basic Motivations for Undertaking Creative Tasks

Basic Motivation	Definition	Examples
Competence	Anticipated satisfaction derived from completing a creative project successfully.	<p>“Most of the time I feel really good because you’re taking pieces of something and putting it into an actual finished product.”</p> <p>“Producing something tangible is a really nice feeling.”</p>
Autonomy	Enjoyment derived from the freedom to choose the process and/or design of the creative task.	<p>“You made it yourself; you chose the colors and stuff, so it’s customized. It feels like it belongs to you.”</p> <p>“I feel happy when I do my models. I feel like I can accomplish something. All the choices you make are your own. You make every decision for yourself.”</p> <p>“I make a lot of things you can’t find &lt;in stores&gt;. For originality and fabric quality, I prefer to make certain things myself.”</p>
Learning	Desire to attain or improve the skills necessary for completing creative projects.	<p>“I like the learning opportunity and sort of look at what the other guy is doing. At meetings, they’ll do little presentations on techniques.”</p> <p>“I learned through mistakes. The first 5 or 6 car models I bought, I was able to build them but they didn’t look as good as the models I build now.”</p>
Engagement and Relaxation	Anticipated satisfaction derived from immersion in the creative process itself.	<p>“Sitting in an office all day, coming home, and building something with my hands and taking all my attention is a good way to me to relax and wind down.”</p> <p>“It’s meditative plus it’s a relaxing thing.”</p> <p>“There’s something about working with wood that’s very pleasing to a lot of the senses.”</p>

**Table 1, continued**


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Self-Identity	Desire to reinforce or enhance one's self-perceptions of creativity.	"I think I'm creative and people at work tell me I'm creative because nobody else does stuff like this. I kinda came to realize that I'm different sortof."
		"It makes me feel unique because not everybody does this kind of work. People think I'm creative."
Public Sense of Accomplishment	Anticipated satisfaction derived from others' recognition of one's own creative accomplishments.	"It's also for self-gratification when you show it to the person and they ooohhh and ahhhh... It's gratifying to have someone appreciate it when you give it to them."
		"The other morning for a contest, I finished a model at 4am and then the first thing I did was take pictures and post it on the net for my friends to see."
		"At weddings, when we give the quilts, our family and friends look at us and admire what we've done and the fact that we're so close."
		"Well, it's gratifying when you're cooking for a group of people who are really appreciative and they give you a lot of compliments."
		"My husband really likes it (the scrapbook) and that makes me happy."
Community	Desire to share creative experiences with others who are similarly-motivated.	"Everyone's a bit different, not my normal social group, but something like this brings us together...we share information and there's a positive feeling in model groups."
		"We go to one or two meetings a month and it's the same people... Even though I don't do stuff with them outside of that. I thought about giving up 'Stamp It Up' because I'm not making money, but I can't give it up. I'd have to give up that whole part of my life."

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**TABLE 2**

The Pros and Cons of the Constraints Imposed by Creativity Products  
(Kits, Models, Recipes and Patterns)

Pros	Examples
Ease of Use / Efficiency	<p>“I first started when my parents bought me a little model. They’re very easy to assemble. Right off the bat, you cut and glue it on. That’s it.”</p> <p>“There are people who do scratch building &lt;building without the kit&gt;. It is much more difficult. I don’t have the time to do that.”</p>
Low Skill Requirements	<p>“I think they &lt;novice stampers&gt; like it when they first try it and it looks good...even the first time.”</p> <p>“It gives you a starting point, and gives you the basics to put something together. Because you know, I’m not a seamstress. I’m not that skilled so it definitely gives me a starting point.”</p> <p>“I can see it &lt;the kit&gt; being helpful for, you know, a beginner who doesn’t really have the schooling for doing blueprints, and doing cutting lists, and actually figuring out how many sheets of plywood they need to buy.”</p> <p>“I wouldn’t have the imagination to come up with the different ingredients...like a pumpkin spice cream cheese icing...on my own.”</p>
Certainty of the Outcome	<p>“I do like to have a picture so I know what it’s supposed to look like, so I can see if mine looks as good as the picture does.”</p> <p>“If you have a picture and a recipe, you’re pretty well guaranteed that it will come out looking like that and taste what you think it’s going to taste like.”</p> <p>“I’m a big fan of box kits. If you buy it from the box, you try to make it look like the box.”</p>
Learning Opportunities	<p>“I learned from the models how to paint. You have to spray fast. There are a lot of skills to painting.”</p> <p>“When I was first learning how to sew, that’s what you did was follow the pattern, which gives you lots of instructions. I couldn’t sew without them.”</p>

Table 2, continued

Cons	Examples
Uniformity of the Outcome	<p data-bbox="440 384 1395 453">“It is good to have a product that looks exactly like the picture but then it is not special anymore, right?”</p> <p data-bbox="440 495 1395 600">“With kits, there’s nothing on your own there. It’s just someone else’s and all you’re doing is assembly. It’s like buying at IKEA and saying that you made it.”</p> <p data-bbox="440 642 1395 711">“Kits are like the lazy man’s easy way out. Scratch is just the classier thing the do.”</p> <p data-bbox="440 753 1395 787">“I like to customize the kit in order to ‘put my own stamp on it.’”</p> <p data-bbox="440 829 1395 934">“I’ve outgrown the kits. Sometimes I do use the same pattern, but I try different colors and sometimes the designs look actually quite a lot different.”</p> <p data-bbox="440 976 1395 1073">“I definitely like it when I come up with my own idea, just because I don’t want to copy something else. I would feel kind of lame. I would rather make it myself and have my own idea and feel like I was creative.”</p>
Decrease in Process Enjoyment	<p data-bbox="440 1115 1395 1220">“When you’re following such strict guidelines, it’s pretty frustrating and probably more challenging than when you’re just freewheeling. It’s pretty constricting.”</p> <p data-bbox="440 1262 1395 1331">“I think it’s less fun if someone is telling me exactly what step to do and what to do because it’s not creative.”</p> <p data-bbox="440 1373 1395 1440">“I use the pattern as a starting point and go from there. It’s like, who wants to follow <i>anything</i> exactly by the rules?”</p>
Mis-Match Between the Challenge of the Task and the Hobbyist’s Skill Level	<p data-bbox="440 1482 1395 1661">“Some of the companies have products that are a lot more complicated than they ever have been in the past. They’ve got all these new technologies that they use and the parts are a lot smaller; they’re a lot finer; they’re a lot more delicate... You’ll beat yourself over the head over one of these things.”</p> <p data-bbox="440 1703 1395 1797">“They &lt;the kits&gt; are for those self-proclaimed non-creative people. I see those kits and think ‘Oh God’. They’re pre-made. You just literally glue it on.”</p>

FIGURE 1  
Experiential Creation

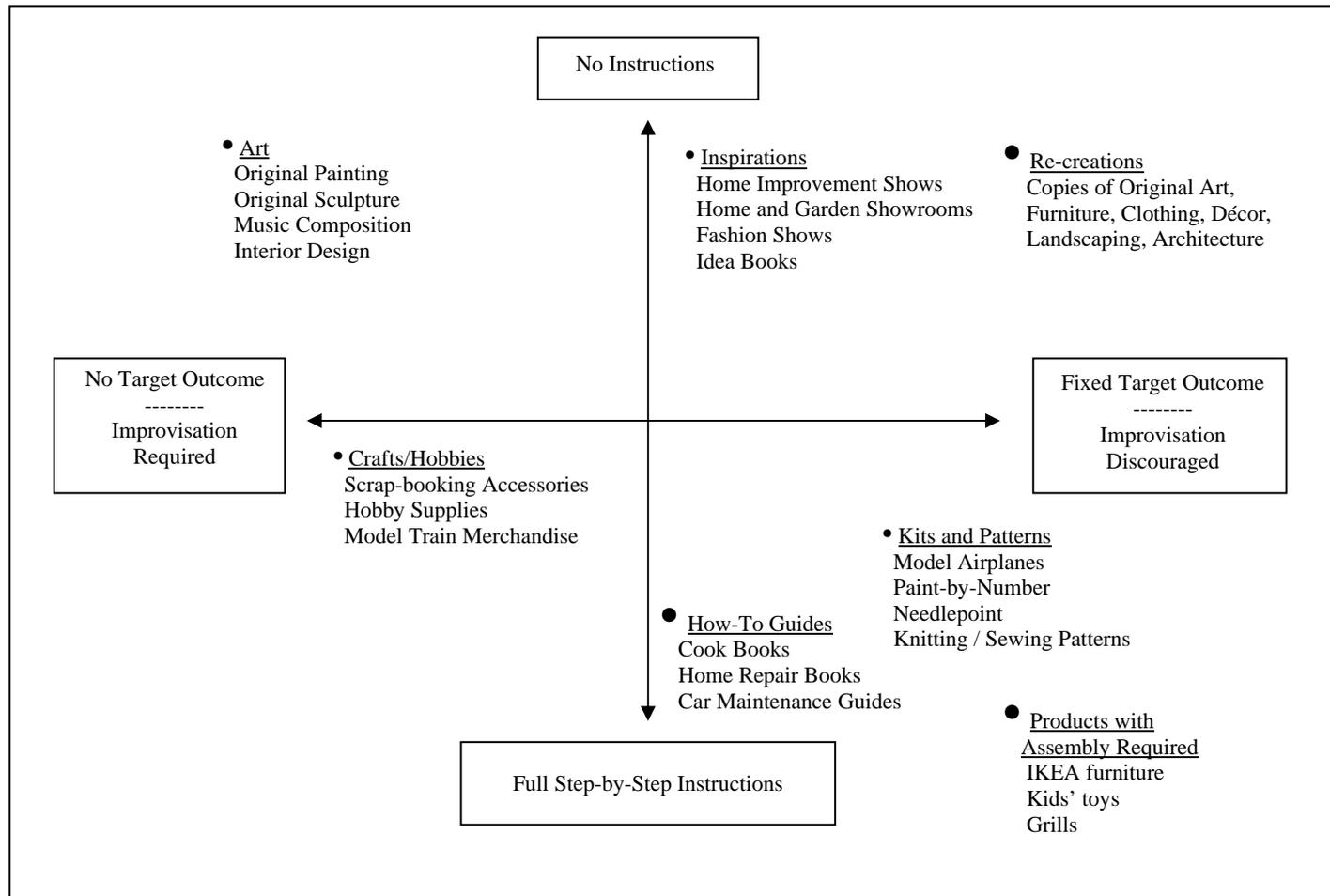
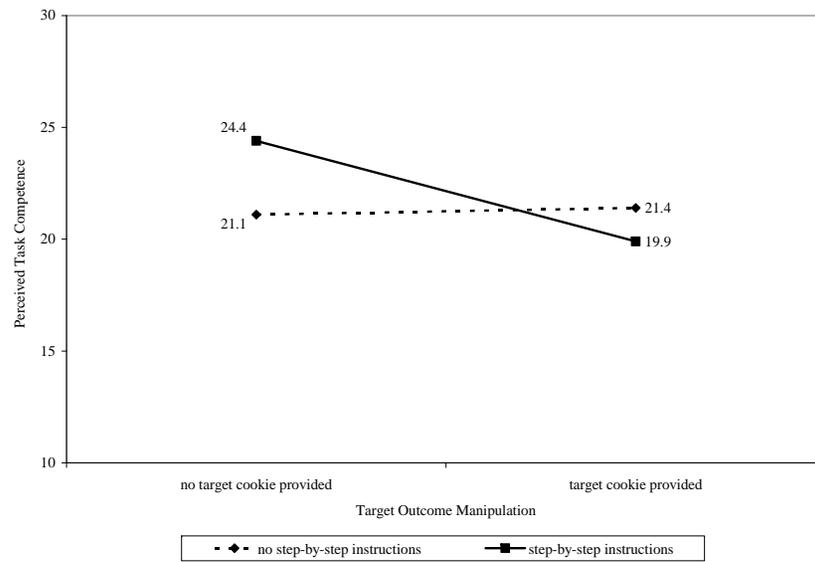


FIGURE 2

Study 1: The Interactive Influence of Level of Instruction and Target Cookie Outcome on Perceived Task Competence and Autonomy

## A) Competence



## B) Autonomy

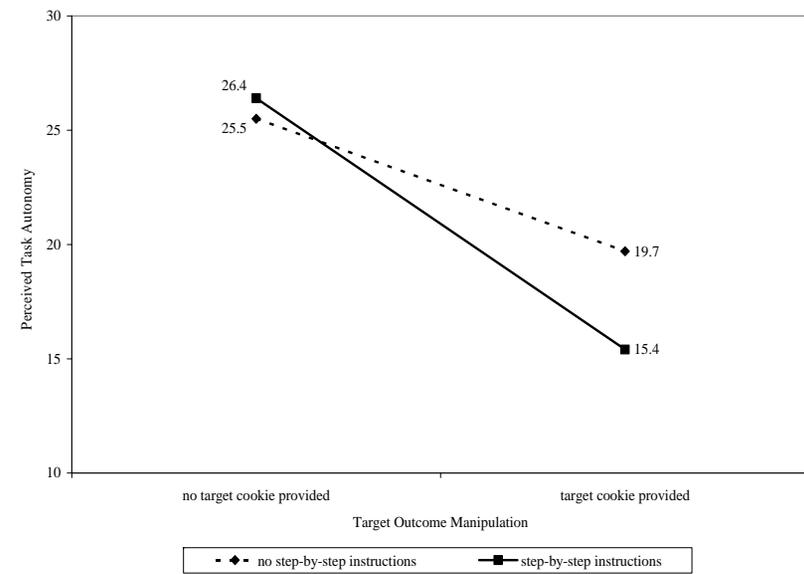


FIGURE 3  
Study 1: The Interactive Influence of Level of Instruction and Target Cookie Outcome on Task Enjoyment

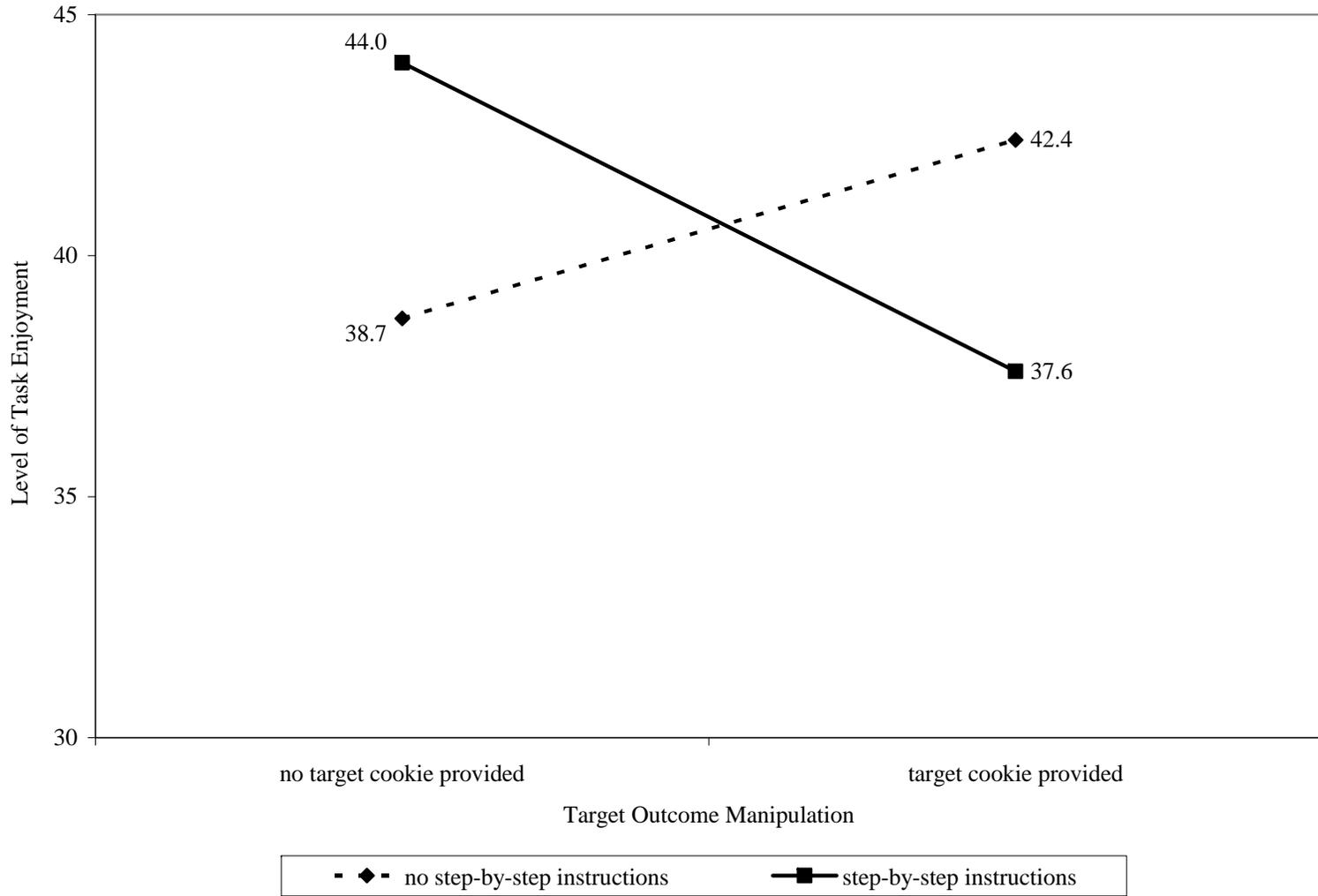


FIGURE 4

Study 2: The Interactive Influence of Prior Baking Skill and Target Cookie Outcome on Perceived Task Competence

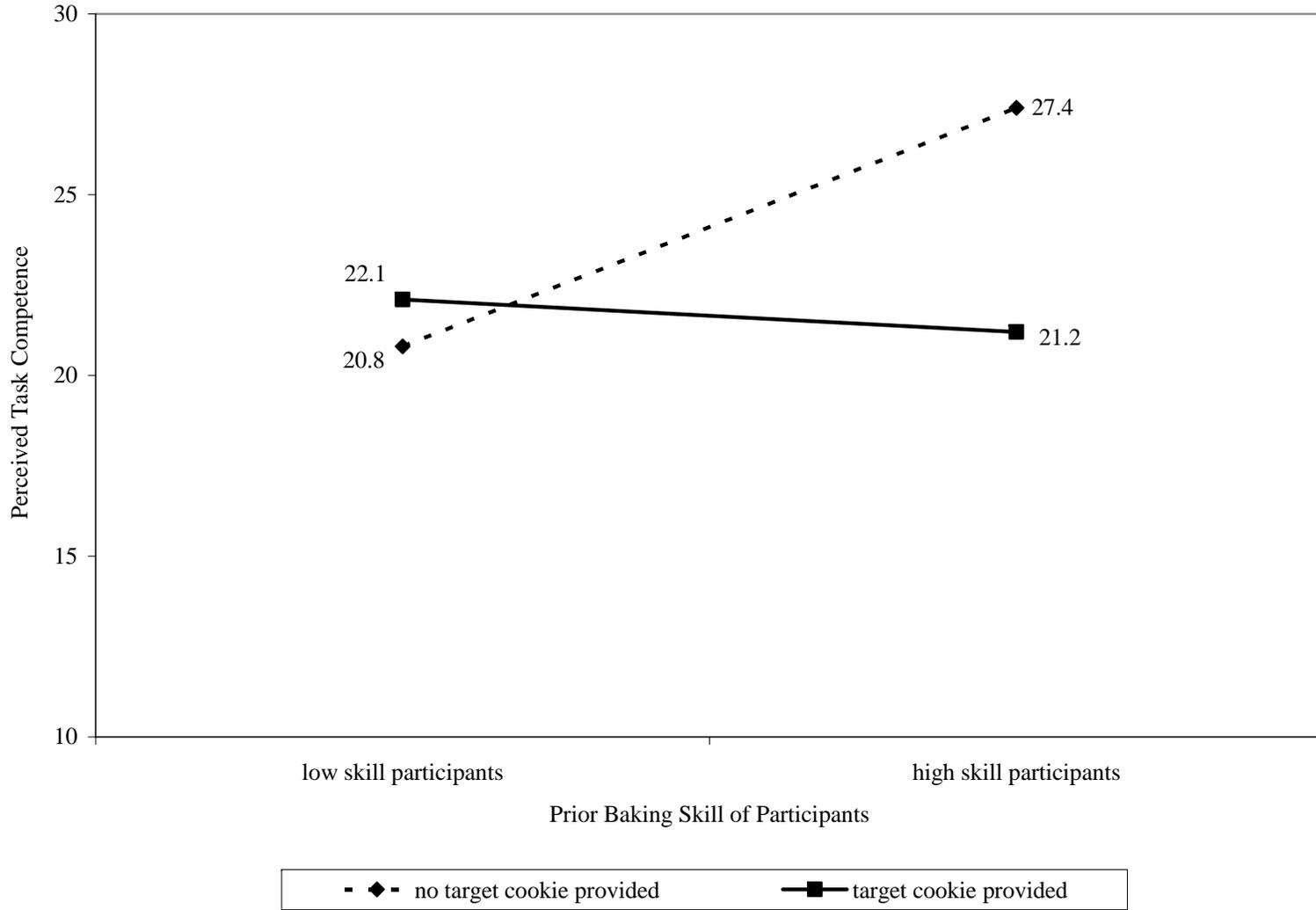
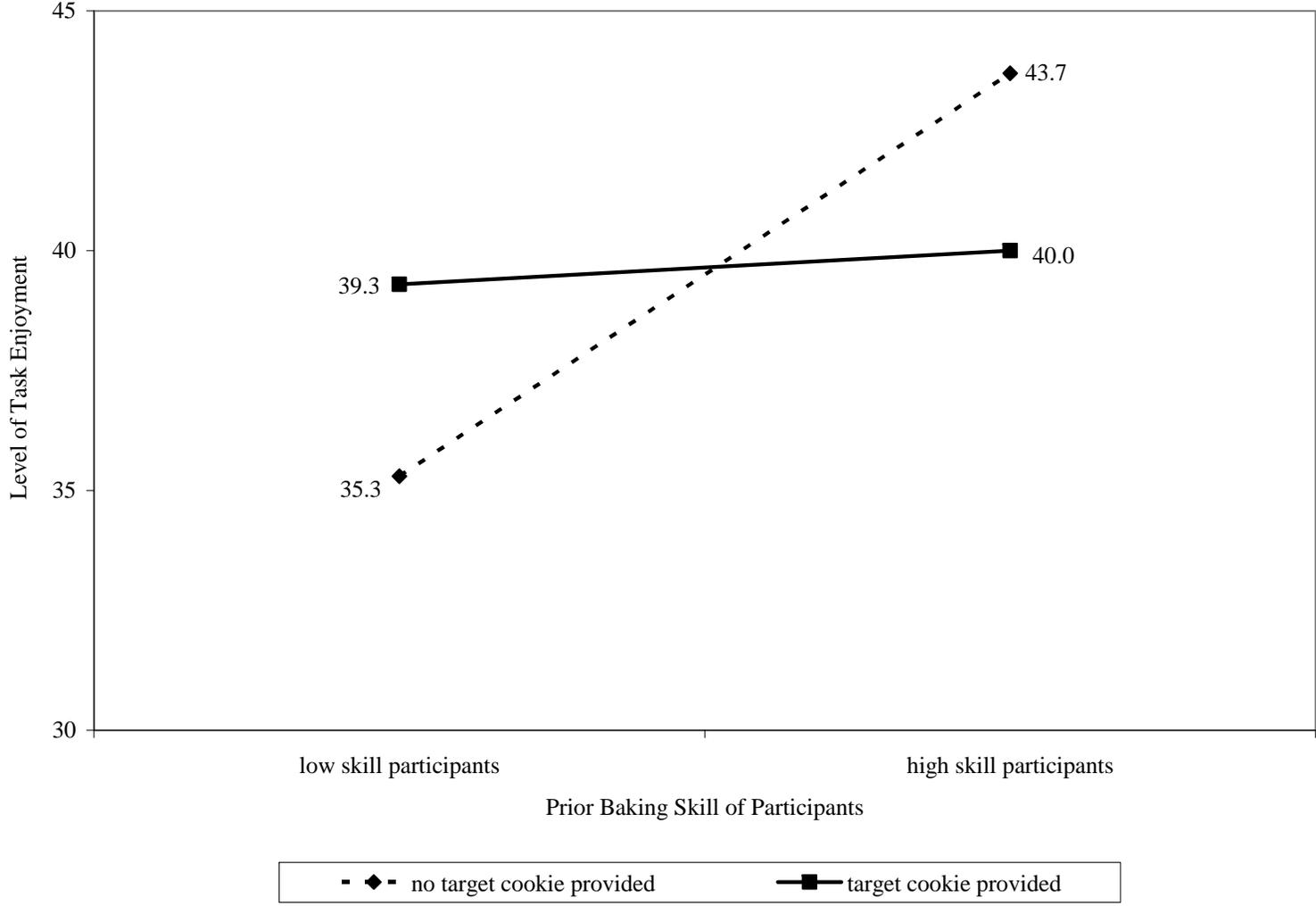


FIGURE 5  
Study 2: The Interactive Influence of Prior Baking Skill and Target Cookie Outcome on Task Enjoyment



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