PLATE
Product Lifetimes And The Environment

Design for the wise consumer

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Keywords	Abstract
Wise Consumer Design for Wisdom	In response to dominant patterns of mainstream consumption evident in developed economies, Consumer Wisdom offers a positive alternative whose objective is to simultaneously promote the well-being of the individual, society, and the natural environment. The current research has two objectives. First, through a series of in-depth interviews with individuals nominated for their wisdom, we provide an empirically grounded theory of Consumer Wisdom. Our theory of Consumer Wisdom is composed of five interdependent facets: Contemplation, Intentionality, Emotional Mastery, Openness, and Transcendence. Next, we synthesize design principles from existing design frameworks and philosophies that align with the facets of consumer wisdom, and we build on these to reflect new insights derived from our theory.

Introduction

The consumption related decisions and behaviors that individuals make every day have a significant effect on both the individual consumer's well-being and, collectively and cumulatively, on society and the natural environment. There is a growing recognition that today's mainstream consumer lifestyles are not scalable globally due to resource and other constraints, and the significant unintended negative effects of conventional consumption patterns on current global challenges such as pollution and climate change (Assadourian 2013). A critical question, then, is "what is the alternative to the mainstream consumer lifestyle dominant in developed economies?" The first objective of our research is to study a nascent, contrasting phenomenon of Consumer Wisdom. Based on extensive fieldwork, we develop a theory of Consumer Wisdom consisting of five, interdependent facets: *Contemplation, Intentionality, Emotional Mastery, Openness, and Transcendence.*

Further, while wise consumers may make better decisions and behave in ways that better promote their own well-being and that of society, they are limited by the consumption alternatives that are readily available in the marketplace. Therefore, the second objective of our research is to use the insights gained from our study of wise consumers to develop a set of guidelines for designers to consider in both their choice of what to design (i.e., the characteristics of product or service categories that most appeal to wise consumers) as well as how to design for the wise consumer (i.e., design criteria to consider given a chosen product or service category). These preliminary guidelines offer the possibility of better serving the wise consumer as well as the potential to promote similar choices and behaviors amongst traditional, mainstream consumers. These choices and behaviors, which we illustrate through our research, include many practices that have been previously identified as contributing to the extension of product lifetimes and reduced aggregate consumption levels (e.g, collaborative consumption). We synthesize, build upon, and motivate these practices based on original, empirically grounded insights about wise consumers.

Methodology: A Theory of Consumer Wisdom
Participants

Following Baltes et al. (1995) who studied the psychology of personal wisdom, our interest was in interviewing wise individuals. Our recruitment approach was highly selective and involved a nomination process — a common approach in wisdom research — in order to identify our 31 informants (Ardelt 2003; Baltes et al. 1995; Glück et al. 2013).

Given that some consistent themes have begun to emerge from research on the psychology of personal wisdom, such as "pragmatic knowledge" (Baltes and Staudinger 2000) and "pro-social" (Bangen et al. 2013), we used purposive sampling to identify specific subpopulations of interest that we believed would be particularly well suited to exploration of these themes within a consumption context. For example, to facilitate the identification of participants who are pragmatic, we sought to identify small-farm owners in the Northeast of the United States. Likewise, we sought to identify urban progressives in the Pacific Northwest to facilitate identification of participants who are pro-social. To increase the range of experiences explored in aggregate, we also sought some diversity with respect to a variety of factors such as age, gender, occupation, region of the country (all in the U.S.), and community type.

Procedure

Each interview began with informants providing some information about their background and lifestyle. Next, informants were reminded that the interview was focused on "everyday decision making" and that we would use the context of consumption, which was defined for them, for us to understand their approach (i.e., both their practices and philosophy). We then asked them to describe in detail a "significant consumption related decision" that they had made in the prior 6-12 months. We repeated this line of questioning for other consumption choices, including those that they would consider to be "relatively minor, weekly, or daily choices." We probed as needed to explore all stages of consumer decision making and behavior, from need identification, through choice, ownership, and disposition.

Analysis

An initial high-level coding scheme was developed based on our literature review. The coding scheme was iterated throughout by creating and maintaining sub-codes as well as memos for all sub-codes. Codes at both levels were added or expanded or, conversely, collapsed or deleted to reflect the emergent meaning, prevalence, and distinctiveness of each code and sub-code. Next, we revisited all coded passages in a second comprehensive review, this time reviewing passages by code and sub-code (Thompson, Locander, and Pollio 1989). Throughout this final stage, we refined the memos describing the attributes of each code and sub-code, and recoded passages as needed. In doing so, we were able to further refine the meaning and boundaries of our codes towards identification of the facets that collectively constitute the foundation for a parsimonious theoretical framework of consumer wisdom.

Findings: A Theory of Consumer Wisdom

Our analysis yielded an integrated set of five facets of consumer wisdom which we describe below: Contemplation, Intentionality, Emotional Mastery, Openness, and Transcendence. Further, we provide illustrative practices for each of these five facets of consumer wisdom (see Table 1).

Contemplation. Contemplation involves reflection across time and perspectives, and the reasoning required to integrate and reconcile often incomplete and even contradictory information. Thus, contemplation is active and situational, yet builds upon and contributes to the individual's knowledge and understanding. Although it was most evident in informants' everyday consumption related behaviors, contemplation was equally important in their overall lifestyle envisionment.

Intentionality. Intentional consumption is borne from the consumer's recognition of the inexorable and equivocal relationship between their lifestyle and discrete consumption related behaviors, and the assumption of personal responsibility for their deliberate management. Specifically, intentionality is reflected in the wise consumer's ongoing lifestyle envisionment and their deliberate planning and management of the resources needed to realize their chosen lifestyle.

Emotional Mastery. Emotional mastery refers to informants' awareness, understanding, and management of the full spectrum of consumption-related emotions, and the behaviors and experiences that elicit them. Beyond the situational regulation of emotions that might thwart their intended behaviors or experiences, emotional mastery also encompasses avoidance of the contexts and behaviors that might lead to undesired emotions and emotional states, such as regret, guilt, and stress. Moreover, it also includes an explicit pursuit and attainment of desired emotions and emotional states, such as joy, gratitude, harmony, and flow, and the intentional approach towards the consumption-related contexts and behaviors that enable them.

Openness. Our informants were characteristically curious, open-minded, and drawn to new ideas and experiences, which was reflected in an ongoing evolution of their values, goals, preferences, and behaviors. For some, this personal growth was enabled by consumption, e.g., through travel. For others, it was manifest directly in their consumption behaviors and reflected an openness to experiment with and selectively adopt alternative consumption practices. These alternative consumption practices span the breadth of consumption-related activities, from production through acquisition and use, and often seek to provide benefits beyond traditional utilitarian and hedonic attributes, such as personal connection and enactment of other-oriented values. These practices include many that are consequential for extending product lifetimes, including alternative ownership models, collaborative consumption, repair, and re-use.

Transcendence. Beyond pursuit of their own envisioned lifestyle, informants' consumption stories also demonstrate a concern for the consequences of their consumption and a recognition that consumption relates to, and can support, supra-existential motives. Building on a caring for the self and others, transcendence reflects many of our informants' desire for connections with others, with the natural world, and, ultimately, a sense of interdependence of the 'self' and 'other'.

Design Implications for the Wise Consumer

Given an understanding of the consumption related tendencies of the wise consumer (i.e., their disposition to think, feel and act in specific ways), we turn to the second objective of our research which is to identify, define, and organize a set of guidelines for designers to consider in both their choice of what to design (i.e., the characteristics of product or service categories that will most appeal to wise consumers) as well as how to design for the wise consumer (i.e., design criteria to consider given a chosen product or service category). There are many well established models and philosophies of design that, to varying degrees, provide guidelines consistent

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with the facets of wise consumption. These include Life Cycle Analysis, Natural Capitalism, Cradle to Cradle, and the Circular Economy (see Shedroff 2009 for a review of many of these). Therefore, the guidelines we propose are based on a synthesis of existing practices — identifying, prioritizing and organizing principles and practices that align with the facets of consumer wisdom — as well as generation of derivative or new guidelines based on insights gained from our research on the five facets of consumer wisdom (see Table 2). While a detailed elaboration of each of these guidelines is beyond our current scope, the following example – focusing on a dimension within the facet of Emotional Mastery – serves as an illustration.

One of the characteristics of the wise consumer is that they selectively use products and services as a means to enable positive experiences characterized by emotions and emotional states such as joy, excitement, pride, and flow. Thus, to the degree possible, designers will be relatively more successful when they focus their talents and efforts on products and services that provide these benefits. This suggests favoring product categories such as bicycles and pianos, for example, as opposed to stationary gym equipment and garage organization systems. While the latter product categories provide some benefits as well, the highest potential product categories will be those that exhibit multiple characteristics that appeal to the wise consumer, including the generation of positive emotional states.

Next, following the same logic, products within a given category, say bicycles, will be especially appealing if they continue to provide these positive emotional experiences over time. A design challenge emerges from the reality that consumers learn and adapt. Since the positive experience of 'flow' is obtained at a moderate level of challenge where the individual is neither bored nor overwhelmed (Csikszentmihalyi 2008), this means that the product itself must adapt as well, or at least have a design that accommodates varying levels of capability as the user's skill and confidence increase. For example, most bicycles that are designed for off-road use (i.e., "mountain bikes") are designed to accommodate a given tire size that is optimal for a typical user and typical conditions. A better design, however, would be more versatile — allowing for changes in tire size (diameter and width) so that the user could reconfigure the same bicycle at minimal cost for significantly different conditions that require more advanced levels of ability and confidence. Consider that bicycles for young children often have detachable "training wheels" for the same reason (i.e., to accommodate their development) – yet that logic is seldom applied to adult bicycles. Instead, consumers often grow tired of the things that they own, meaning that they need to spend more in order to obtain the same level of positive experience. This dynamic hurts the individual, who must spend more money and time, as well as the environment, given the need for resources to support the proliferation of dormant products. This is just one of many guidelines that we believe would lead to products and services that the wise consumer would be especially likely to notice, use, and appreciate over time. Further, though they might not recognize it as readily as the wise consumer would, such design would also benefit more mainstream consumers, also enabling their extended use of similarly versatile products over time.

Conclusions

Consumer Wisdom offers a positive alternative whose objective is to simultaneously promote the well-being of the individual, society, and the natural environment. Our hope is to provide an empirically grounded theory of Consumer Wisdom that will, in turn, provide insights and guidance to product designers as well. There are limitations to our research, some of which provide excellent opportunities for future research. Purposive samples are narrow by nature, but nonetheless ours served the intent to explore consumer wisdom among a set of individuals highly respected by their friends and colleagues. It remains to be determined if these same wisdom facets would arise among consumers from a wider range of socioeconomic classes and ideological tendencies. Similarly, our findings are based upon the U.S. cultural context, and thus future research is needed to determine if and how the wisdom facets identified manifest similarly in other settings.

In addition, while our set of proposed design guidelines were informed in part by existing design frameworks and philosophies, future efforts could extend our research by engaging more directly with the design community. Specifically, a logical next step would be to share our theory of consumer wisdom with design practitioners and to engage their help with refining and building upon these preliminary guidelines. However preliminary, the guidelines serve the purpose of illustrating the benefit of developing actionable guidelines for designers that are informed by original, empirically grounded theory that intends to help re-orient designers and others around an aspirational model of consumer wisdom.

References

Assadourian, Erik, Tom Prugh, and Linda Starke (2013). "State of the World 2013: Is Sustainability Still Possible?," Beyond fossil fuels: assessing energy alternatives, 15th edn. Springer, Heidelberg, 172-183.

Ardelt, Monika (2003), "Empirical Assessment of a Three-Dimensional Wisdom Scale," Research on Aging, 25(3), 275.

Baltes, Paul B., Ursula M. Staudinger, Andreas Maercker, and Jacqui Smith (1995), "People Nominated as Wise: A Comparative Study of Wisdom-related Knowledge," Psychology and Aging, 10, 155-66.

Baltes, Paul B., and Ursula M. Staudinger (2000), "Wisdom: A Metaheuristic (Pragmatic) to Orchestrate Mind and Virtue Toward Excellence," American Psychologist, 55, 122-36.

Bangen, Katherine J., Thomas W. Meeks, and Dilip V. Jeste (2013), "Defining and Assessing Wisdom: A Review of the Literature," The American Journal of Geriatric Psychiatry, 21(12), 1254-66.

Csikszentmihalyi,Mihaly (1990), Flow: The Psychology of Optimal Experience, Harper Collins.

Glück, Judith., Susanne König, Katja Naschenweng, Uwe Redzanowski, Lara Dorner,   Irene Straßer, and Carolyn Aldwin (2013), "How to Measure Wisdom: Content, Reliability, and Validity of Five Measures," Frontiers In Psychology, 1-13.

Shedroff, Nathan (2009), Design is the Problem: The Future of Design must be Sustainable, Rosenfeld Media.

Thompson, Craig J., William B. Locander, and Howard R. Pollio (1989), "Putting Consumer Experience Back into Consumer Research: The Philosophy and Method of Existential-Phenomenology," Journal of Consumer Research, 16(2), 133-146.

Consumer Wisdom Facet	Definition	Exemplary/Illustrative Practices
Contemplation	The practice of considering discrete consumption options and their consequences across time through *retrospection* and *prospection*, as well as the *reasoning* to synthesize and reconcile often incomplete and even contradictory information	• Learning from one's own past consumption experiences • Learning from observing others' consumption behaviors and their consequences • Imagining future consequences of a potential consumption choice • Simulating the outcome of a potential purchase • Evaluating consumption options holistically and making decisions that align with values and intended lifestyle
Intentionality	The practice of ongoing *lifestyle envisionment* and the deliberate *personal resource management* needed to realize a chosen lifestyle	• Assuming personal responsibility for lifestyle and resource management • Developing a lifestyle vision that aligns with values and resources • Development of resource plan/budget • Active management of budget, including budget-shifting • Periodic re-evaluation of lifestyle and resources
Emotional Mastery	The balancing of both *restraint and the avoidance of negative emotions,* and the *pursuit of positive emotions,* including an active avoidance of, or approach towards, the consumption-related contexts and behaviors that elicit them	• Delaying or avoiding consumption that might lead to regret, guilt, and anxiety • Pursuing consumption that promotes joy, excitement, flow • Avoiding contexts that thwart intended consumption behaviors • Approaching contexts that support intended consumption behaviors
Openness	*Openness to personal growth* through the contexts and content of consumption and the selective adoption of *alternative consumption* practices	• Consumption that promotes the development of skills or enables new experiences • Consumer goods production/co-production • Borrowing/sharing • Buying used, custom, or small-batch produced goods • Extending the value of goods already owned
Transcendence	*Caring* for the self and for others and, building on this ethic of caring, the pursuit of *connections* with others and with the natural world, ultimately manifesting in a sense of interdependence with a greater reality	• Consumption that promotes one's own physical and emotional health • Pro-environmental and pro-social consumption • Consumption that supports local community • Consumption behaviors (including reduced consumption) that reflect a recognized interdependence with natural world

Table 1. Summary Descriptions of Consumer Wisdom Facets and Illustrative Practices.

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Consumer Wisdom Facet Dimensions	Product or service category characteristics to consider (when choosing *what* to design)	Design criteria to consider (*given* a chosen product or service category)
Contemplation Retrospection Prospection Reasoning	• Clear purpose and realizable value (utilitarian and/or experiential) • Observable value • Use over time (and value over time) can be easily and realistically simulated or imagined	• Focused set of features/capabilities with the greatest value (for the targeted user, over time) • Superior overall value relative to existing alternatives (but not across all possible dimensions) • Aesthetically distinct to aid identifying its value in use • Can be experienced or simulated pre-acquisition
Intentionality Lifestyle envisionment Personal resource management	• Promotes user's well-being (physical and/or mental) • Serves a lifestyle-relevant purpose or goal • Saves time and/or money (longer term, not necessarily at acquisition) • Multi-purpose • Minimizes ownership requirements • Once owned, can be rented or resold to free resources of time and money	• Unobtrusive; does not interfere with lifestyle • Easy & low cost to learn how to use • Easy & low cost to use • Easy & low cost to store • Easy & low cost to maintain • Easy & low cost to diagnose and repair • Reliable/predictable • Durable • Modular/upgradeable • Avoids waste
Emotional Mastery Avoiding negative emotions Pursuing positive emotions	• Does not entice or allure with exaggerated or false promises of value • Promotes positive behaviors and habits • Contributes to experiences of joy, excitement, pride, and flow	• Honestly conveys capabilities/affordances • Versatile; accommodates wide range of expertise, allowing growth in user capability and avoiding boredom • Timeless; the product's emotional value does not wane over time due to fashion or technological obsolescence • Easy to dispossess in a responsible way
Openness Openness to personal growth Openness to alternative consumption	• Provides opportunity to develop new skills • Provides new experiences • Promotes personal growth • Can be co-created • Can be shared with others • Can be exchanged with others • Can be repurposed	• Provides ease of initial use (minimize features) • Enables user accommodation/customization (e.g., adjustable) • Universally appealing to many • Maximizes portability (e.g., attractive, durable cases) • Robust; durable and reliable in different contexts
Transcendence Caring Connection	• Promotes self-care (physical and mental) • Facilitates relationships • Promotes community • Promotes cultural capital • Promotes intercultural understanding • Connects consumer with the natural environment • Promotes a sense of interdependence with all life	• No/low environmental/resource cost to produce • No/low environmental/resource cost to use • No/low environmental/resource cost to dispossess • Easy to reuse, repurpose and/or recycle • Positive social impact in production and acquisition • Positive social impact in use • No/low social cost to dispossess • No/low cultural cost in use

Table 2. Design Implications for the Wise Consumer.