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Master's Thesis
Academic Year 2025

Crystals as Behavioral Anchors:
Designing Symbolic Interactions for Mindful
Space and Choice



Keio University
Graduate School of Media Design

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A Master's Thesis
submitted to Keio University Graduate School of Media Design
in partial fulfillment of the requirements for the degree of
Master of Media Design

Yuhan Zhou

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Abstract of Master's Thesis of Academic Year 2025

Crystals as Behavioral Anchors:
Designing Symbolic Interactions for Mindful Space and
Choice

Category: Design

Summary

In today's consumer culture, material excess often leads to cluttered spaces and impulsive spending—issues that resist simple solutions. This study explores whether symbolic objects—specifically crystals—can support space organization and mindful consumption through ritual-based interaction. Drawing from symbolic interactionism, semiotics, and behavioral theory, the study proposes Ritualized Symbolic Interaction (RSI), a framework where repeated micro-engagements with objects help shift spatial habits and decision-making.

A randomized experiment with 30 graduate students compared two groups: one used crystals with daily care rituals, the other used cherished items with passive display. Both followed a five-step intervention, from spatial reflection to habit maintenance. Surveys measured changes in space organization, emotional attachment, and consumption reflection. Interviews and journals captured participants' meaning-making processes.

To test the public resonance of crystal-centered rituals beyond the experimental context, a supplementary Instagram campaign was launched. Posts combining crystals with personal storytelling consistently outperformed purely aesthetic content, suggesting that narrative framing enhances audience engagement with symbolic consumption practices.

Results show that the crystal group developed stronger routines, deeper emotional regulation, and more thoughtful purchasing habits. Crystals acted as quiet behavioral prompts that turned clutter into a cue for reflection. This study introduces RSI as a practical and theoretical tool for designers, educators, and

sustainability advocates. Future research should explore its long-term impact, cultural flexibility, and potential with other symbolic objects.

Keywords:

symbolic interaction, ritual design, semiotic communication, space organization, behavioral anchors

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Chapter 1

Introduction

1.1. Research background and motivation

The physical environment of our living spaces communicates far more than aesthetic preferences—it reflects emotional states and psychological well-being. Through the presence or absence of clutter, the arrangement of furniture, and the display of personally meaningful items, our homes often function as silent expressions of our internal conditions. Disorganized or chaotic environments can indicate stress, loss of control, or emotional fatigue, while well-maintained spaces may reflect mindfulness, intentionality, and emotional clarity.

This non-verbal dimension of the built environment has become increasingly important in modern life. As urban living spaces continue to shrink and consumer products become more accessible, clutter has emerged as a common and persistent issue. Importantly, clutter is not simply a visual or spatial concern; it has been associated with increased anxiety and decreased feelings of control in daily life (Roster, 2014). As a result, organizing one’s living environment has shifted from a mundane chore to a meaningful practice that supports both psychological balance and emotional well-being.

This research investigates how symbolic objects—specifically crystals—contribute to this form of environmental communication. Beyond their decorative value or spiritual associations, crystals are approached here as material agents capable of shaping behavior through everyday rituals. Their presence in the home invites micro-actions—such as repositioning or cleansing—that may gradually cultivate habits of spatial care and more intentional patterns of consumption.

1.2. Research gap and problem statement

A substantial body of research has explored the psychological effects of clutter and the emotional significance of personal belongings. Sentimental items, such as family photographs or souvenirs, often serve as emotional anchors that motivate individuals to maintain their spaces. However, these objects tend to be passive—they provide comfort but do not demand continuous interaction or engagement.

Crystals, by contrast, encourage repeated, ritual-based interaction. Their care often involves deliberate, recurring actions—such as dusting, repositioning, or placing them in sunlight—which foster an ongoing relationship between the object and the user. Through these behaviors, crystals become embedded in daily routines, functioning as behavioral cues that promote spatial attentiveness. Despite this potential, few studies have investigated how symbolic, ritualized engagement with objects like crystals may lead to long-term behavioral changes in space organization or consumption habits.

In addition, there is a notable gap in cross-cultural research on how the symbolic meanings and behavioral functions of objects like crystals vary across different sociocultural contexts. In one culture, a crystal may be regarded as a spiritual tool; in another, it may be treated purely as an aesthetic or decorative item. These culturally embedded frames of reference can significantly influence the behavioral impact of symbolic objects. Addressing these two gaps—ritual-based behavioral influence and cultural variability—forms the central rationale for this study.

1.3. Research objectives and questions

This study is guided by the following central research question:

Can decorative symbolic objects, such as crystals, promote consistent spatial organization by serving as emotional and ritual-based behavioral cues?

To answer this question, the study aims to:

1. Examine how routine crystal-related practices—such as repositioning, cleansing, or display—can foster sustained habits of spatial care;

2. Determine whether these habits influence consumer behavior, promoting more deliberate, mindful, and purposeful purchasing decisions;

3. Explore how interpretations and behavioral responses to symbolic objects vary across cultures, with particular attention to the meanings assigned to crystals in different sociocultural contexts.

While this research does not adopt a comparative cross-cultural design, it does include culturally diverse participants who shared a common educational and residential environment. Cultural background was not a central variable in the study design, but observed differences in how participants interpreted and interacted with symbolic objects offer early insight into the role of cultural framing. These informal patterns are noted as exploratory findings to guide future research.

1.4. Significance of the study

This research makes both practical and theoretical contributions. Practically, it reframes crystals not as mystical artifacts or superficial decorations but as functional components of behavioral design, integrated into daily life. Through simple, repeated actions—such as cleaning or repositioning—crystals act as subtle environmental prompts that support intentional behavior and spatial awareness. Over time, these micro-interactions may lead to more organized living environments, reduced accumulation of unnecessary items, and a heightened awareness of consumption patterns.

Theoretically, the study draws on an interdisciplinary foundation that includes symbolic interactionism, semiotics, behavioral communication, relational dialectics, proxemics, cultural communication, and framing theory. Together, these frameworks offer a comprehensive lens for understanding how meaning-making, ritual engagement, and spatial behavior intersect through symbolic objects.

By incorporating cross-cultural perspectives, the study also offers insight into how the interpretation and behavioral effects of symbolic objects differ across sociocultural environments. This cultural dimension expands the applicability of the findings, illustrating how symbolic engagement can serve as a catalyst for lifestyle transformation—promoting not only physical decluttering, but also

emotional clarity and psychological balance.

1.5. Thesis organization

This thesis is structured as follows:

1. Chapter 2 reviews the relevant literature and presents the theoretical frameworks that inform the research.
2. Chapter 3 outlines the research methodology, including participant recruitment, data collection procedures, and analysis techniques.
3. Chapter 4 presents the findings derived from both quantitative and qualitative data sources.
4. Chapter 5 discusses the findings in the context of prior research, emphasizing their theoretical significance and practical relevance. It also serves as a concluding chapter, summarizing core insights, offering design suggestions, and identifying future research opportunities.

Chapter 2

Related works

2.1. Symbolic interactionism and meaning-making

Symbolic interactionism explains how individuals create and negotiate meaning through ongoing interaction with their environment (Mead, 1934; Blumer, 1969). In this framework, the meaning of an object is not fixed, but evolves through use, social context, and personal experience. In this study, crystals serve as symbolic objects whose meanings are shaped through repeated everyday interactions. Individuals may associate them with emotional balance, spiritual protection, or self-identity.

Low emphasizes that meaning emerges from the interaction between individual agency and sociocultural context (Low, 2008), while Carter and Fuller note that symbolic meaning continually evolves within therapeutic, personal, and communal settings (Carter & Fuller, 2016). As such, crystals become embedded with personal narratives and function as extensions of self-expression.

2.2. Behavioral communication and ritualized interaction

Behavioral communication theory emphasizes how repeated actions convey nonverbal messages and maintain relationships (Burgoon, Buller, & Woodall, 1996). In the context of this study, crystal rituals, such as dusting, repositioning, or cleaning, serve as nonverbal cues that promote attentiveness and care for the surrounding environment.

Unlike static sentimental objects, crystals require ongoing engagement, turning routine acts into behavioral prompts. These rituals not only deepen emotional

attachment, but also reinforce positive spatial habits. Over time, the development of these micro-behaviors can lead to improved organization and more mindful interaction with one's space.

2.3. Semiotics: crystals as nonverbal communicative signs

Semiotic theory offers insight into how objects function as signs that communicate meaning through form, representation, and interpretation (Peirce, 1931). Crystals act as semiotic anchors, conveying meaning through their material properties—color, clarity, texture, and form. These sensory features evoke emotional and cognitive responses shaped by individual and cultural interpretation.

For example, amethyst is commonly associated with tranquility, while clear quartz symbolizes clarity and focus. These visual and tactile cues support reflective engagement, encouraging intentionality in both space management and consumption behavior (Jekosch, 2005).

2.4. Relational dialectics: balancing possession and minimalism

Relational dialectics theory explores the tensions individuals navigate when balancing opposing needs (Baxter & Montgomery, 1996). In the context of material culture, one key tension lies between the desire to retain meaningful objects and the goal of maintaining a minimalist lifestyle.

Crystals offer a unique resolution to this tension. Their small size and symbolic richness allow individuals to preserve emotional significance without contributing substantially to clutter. As such, they serve as intentional possessions—emotionally resonant yet spatially minimal.

2.5. Proxemics: spatial-environmental communication

Proxemics examines how spatial arrangements reflect psychological states and social relationships (Hall, 1966). In a home environment, the placement of crystals—on a shelf, by a doorway, or near a workspace—communicates symbolic boundaries, intentions, or emotional significance.

Regular repositioning of crystals subtly reinforces spatial control, psychological comfort, and personal ownership. This act of spatial curation fosters a deeper sense of connection between the individual and their physical environment.

2.6. Clutter, psychological well-being, and cherished objects

Clutter, defined as the excessive accumulation of possessions, has been linked to a range of negative psychological outcomes, including increased stress, reduced life satisfaction, and impaired cognitive functioning. It can also contribute to a persistent sense of mental overload, further undermining emotional well-being (Roster, 2014).

Accumulating too many possessions can place a strain not only on physical space but also on psychological well-being. The KonMari method (Kondo, 2011), developed by Marie Kondo, promotes the idea of keeping only items that "spark joy." It encourages individuals to reflect on their belongings more intentionally, aiming to create a living environment that aligns with personal values and supports emotional balance.

While emotional attachment to possessions can offer a sense of comfort and continuity, holding on too tightly may result in difficulties such as hoarding. This points to the need for thoughtful limits when deciding what to keep for sentimental reasons (Frost, Steketee, & Tolin, 2011).

Comparing RSI with the KonMari method

While the KonMari method emphasizes evaluating possessions through the affective lens of whether they “spark joy” (Kondo, 2011), it largely frames decluttering as a singular decision-making event. Items are kept or discarded based on an immediate, internal emotional response—an approach that prioritizes personal intuition but does not always foster lasting behavioral transformation.

By contrast, this study introduces a dynamic, interaction-based alternative: *symbolic behavioral design*. Rather than relying on a one-time emotional appraisal, the RSI (Ritualized Symbolic Interaction) framework invites repeated engagement with symbolic objects through low-friction rituals—such as omikuji-style message draws or DIY care stations. These micro-behaviors create evolving emotional bonds over time, reinforcing attentiveness and routine care.

In this sense, crystals do not merely “spark joy”; they act as anchors for symbolic communication. Meaning is not instantly judged but accumulated through repetition, context, and narrative. The object becomes not a passive possession, but a behavioral prompt that supports sustainable spatial habits. RSI thus offers a more temporally sustained pathway for material reflection, emotional alignment, and intentional choice formation.

This distinction reframes the role of sentimental objects from static emotional indicators to dynamic mediators of action. It also contributes to the broader discourse on mindful consumption by emphasizing interactional meaning-making over one-time decluttering decisions.

2.7. Framing theory: subjective interpretations of crystals

Framing theory (Goffman, 1974) explains how interpretive perspectives shape both perception and behavior. In this context, how individuals frame crystals—whether as spiritual tools, decorative items, or catalysts for change—influences their engagement and the meanings they assign.

This pattern is especially visible in social media contexts. Findings from this study suggest that posts rooted in narrative and emotional resonance—such

as those featuring daily rituals or personal reflections—tend to generate more engagement than those centered purely on instruction or product information. These outcomes highlight how the framing of symbolic objects can shape both emotional involvement and everyday behaviors related to space and consumption.

2.8. Literature gap and theoretical framework

While extensive literature addresses the psychological impact of clutter, emotional attachment to objects, and consumer behavior, several gaps remain unaddressed:

1. Ritualized symbolic engagement: Few studies explore how emotionally meaningful objects that require active ritual—such as crystals—can foster long-term spatial organization and behavioral change.
2. Cultural variation: There is limited research on how culturally embedded interpretations of symbolic objects influence their behavioral effectiveness.
3. Framing effects: The role of narrative framing and communication style (e.g., storytelling versus instructional tone) in shaping audience response to symbolic objects has not been fully examined, particularly in digital or lifestyle contexts.

This study addresses these gaps by integrating seven complementary theoretical perspectives: symbolic interactionism, behavioral communication, semiotics, relational dialectics, proxemics, cultural communication, and framing theory. Together, these frameworks provide a multidimensional foundation for understanding how crystals—as symbolic and ritualized objects—can influence spatial organization and mindful consumption in both personal and cultural contexts.

These theoretical foundations inform the symbolic behavioral intervention developed in Chapter 3. Symbolic interactionism underpins the idea of crystals as nonverbal dialogue partners mediating the relationship between individuals and their environments. Behavioral communication highlights how repeated ritual actions can support attentional stability and habit formation. Semiotics guides both the selection and interpretation of crystals as emotionally and culturally meaningful signs. Relational dialectics offers a lens on the tension between emotional

attachment and minimalist values in material ownership. Proxemics contributes to the spatial logic of object placement as a way to influence behavior. Cultural communication situates participants' responses within broader interpretive traditions, and framing theory informs the narrative structure of rituals such as omikuji and their adaptation to digital media.

Together, these theoretical strands not only justify the intervention's symbolic focus but also shape its methodological framework—translating abstract meaning-making into concrete, testable design strategies.

Chapter 3

Design

3.1. Research approach

Building on the theoretical foundation established in Chapter 2, this study adopts a communication-centered approach to behavioral intervention. It explores how symbolic objects—specifically crystals—can mediate spatial engagement and intentional consumption through ritualized micro-interactions. Rather than treating clutter as a purely logistical issue, the study reframes it as a communicative disruption—an imbalance in the ongoing dialogue between self and environment.

In this framework, behavior change is understood not as a single turning point, but as a gradual, meaning-laden process sustained by emotionally resonant routines. Symbolic objects function as silent but persistent communicators—anchoring reflection and guiding attention through subtle, everyday cues.

The intervention design is informed by seven interconnected theoretical perspectives:

1. **Symbolic interactionism** shapes the development of crystal-based rituals as micro-dialogues that negotiate meaning between person and space.
2. **Behavioral communication** emphasizes the role of low-effort, repetitive actions—such as cleansing or repositioning—in reinforcing attentional patterns.
3. **Semiotics** supports the selection of crystals as culturally adaptable signs capable of carrying emotional and symbolic weight.
4. **Relational dialectics** illuminates the inner tension between sentimental attachment and minimalist ideals.

5. **Proxemics** informs how spatial arrangement can anchor behavioral cues in the physical environment.
6. **Cultural communication** accounts for the diverse interpretations participants bring to symbolic objects.
7. **Framing theory** guides both the design of rituals (e.g., omikuji slips) and their mediated storytelling across platforms like Instagram.

For example, the daily omikuji ritual embodies symbolic interactionism by inviting participants to engage in self-reflection through randomized symbolic cues. Similarly, the placement of crystals near workspaces draws from proxemic theory, embedding behavioral reminders into the physical environment in subtle but persistent ways.

The intervention was designed as a four-week program to initiate habit formation, reflective practice, and symbolic association. While the study duration was fixed for experimental purposes, the five-stage structure was intentionally developed as a cyclical and flexible model, allowing participants to repeat and personalize each phase—ranging from initial spatial reflection to long-term ritual maintenance—according to their evolving needs.

Although the participant sample consisted exclusively of graduate students in Japan, their diverse cultural backgrounds offered a range of interpretive perspectives. The modular structure of the intervention makes it adaptable across different cultural and demographic contexts, requiring only minor contextual adjustments. Rather than functioning as a one-time protocol, the intervention serves as a habit-formation catalyst that participants can continue implementing independently beyond the formal study period.

Research questions

This study explores whether decorative symbolic objects, such as crystals, can promote tidier spaces and more intentional consumption by functioning as emotional or ritual-based behavioral cues. Specifically, it asks:

1. How do small, meaningful interactions with symbolic objects (e.g., cleaning, repositioning, or caring for a crystal) cultivate broader habits of space organization?

2. Do these ritualized interactions influence consumption behavior, leading to more intentional and mindful purchasing decisions?

Preliminary testing: evaluating symbolic objects in public contexts

Before deploying the full five-stage behavioral intervention, a preliminary proof-of-concept test was conducted to assess how symbolic objects perform in public, unstructured environments. This small-scale activity was not designed to activate symbolic meaning through ritual, but rather to observe whether symbolic objects—when passively present—could still elicit reflective or organizing behavior. The results of this test not only informed the design of the subsequent intervention, but also underscored the importance of ritual structure, personalization, and emotional framing in enabling symbolic activation.

Proof of concept: KMD Forum exit station

Before implementing the full symbolic intervention, an initial proof-of-concept (POC) activity was conducted at the KMD Forum. The purpose of this test was to observe whether a symbolic object—when placed in a public setting without prior context or personal ownership—could still influence behavior.

A table was set up near the exit of the forum, inviting participants to “clean out their bags” by discarding flyers, receipts, or leftover materials before leaving. A small tray of crystals was placed on the table along with simple signage, but no instruction or ritual framework was provided. Participants were not told what the crystals represented or how to interact with them.

Observation: While most participants noticed the crystal display, they did not interact with the objects or inquire about their meaning. The act of cleaning was instead prompted by practical cues: the booth’s location at the exit, the natural pause before departure, and the physical state of having full bags. The crystals functioned more like background decor than symbolic triggers.



Bag cleaning in progress

Figure 3.1



Trashes collected from day 1 & day 2

Figure 3.2

One participant reflected:

“I didn’t really think about the crystal—I just didn’t want to carry all this junk home.”

This response revealed that in the absence of ritual structure, ownership, or emotional framing, the crystal lost its communicative function. It became a passive aesthetic element, not a behavioral anchor.

Key insight: Meaningful interaction does not emerge from symbolic presence alone. Without personalization or intentional framing, even emotionally loaded objects like crystals may be ignored or reduced to ambient decoration. Behavioral change in this case was not driven by symbolism, but by environmental

cues (time and place).

This POC highlighted the limitations of passive symbolism and informed the development of a more structured intervention using ritual, narrative, and user-driven participation.

To address these limitations, the main intervention adopted a structured, ritual-based framework aimed at activating symbolic meaning through guided emotional engagement and repeated interaction.

3.2. Behavioral intervention model: the five-stage process

The intervention draws from the Transtheoretical Model of Change, which frames behavior change as a six-stage process—beginning with precontemplation and culminating in maintenance or termination (Prochaska & Velicer, 1997).

In this intervention, the precontemplation phase is reinterpreted as the recognition of communicative disruption between self and space—a realization of emotional imbalance reflected in the living environment. The five adapted stages are as follows:

1. **Recognition and emotional awareness (Precontemplation):** The participant becomes aware of a disconnect between their internal state and the current spatial environment. This may be sensed as discomfort, stagnation, or emotional clutter, but lacks a clear action plan.
2. **Spatial reflection and intention setting (Contemplation):** Through guided prompts or visualization exercises, the participant begins to articulate what an ideal, emotionally supportive space might look and feel like, and considers the potential for change.
3. **Visioning and planning (Preparation):** Specific emotional goals (e.g., peace, clarity, grounding) are translated into spatial intentions. A symbolic object such as a crystal is introduced as a medium to support this transition, preparing the user for concrete action.

4. **Symbolic reorganization and action (Action):** The participant physically reorganizes their space in response to their goals, using the symbolic object (e.g., crystal) as a behavioral anchor. Interaction may involve rituals such as placement, cleansing, or reflection.
5. **Ritual maintenance and emotional feedback (Maintenance):** Continued engagement through micro-rituals (e.g., omikuji draws, crystal care routines) reinforces spatial mindfulness and emotional regulation. These rituals help sustain the behavioral shift over time.

This model reframes behavior change as a communicative self-regulation process, where symbolic objects serve as mediators that prompt, reinforce, and sustain engagement.

The following section elaborates on how this five-phase intervention model was implemented through a structured experimental design.

3.3. Experimental design

To operationalize the symbolic intervention framework, a four-week experimental protocol was developed, translating each behavioral stage into corresponding participant activities and data collection procedures.

3.3.1 Participant recruitment and sampling

Participants were recruited from Keio University’s Graduate School of Media Design (KMD). All were full-time master’s students residing in Japan. Participation was voluntary, and each participant received a small crystal as a thank-you gift.

While the sample was relatively homogeneous in terms of education and residential context, it included individuals from diverse cultural backgrounds—such as China, the United States, and Japan. This internal cultural variation provided valuable interpretive depth. It offered early insight into how different cultural schemas might shape responses to symbolic objects. However, the lack of generational and regional diversity still limits the generalizability of the findings.

3.3.2 Overall design

See Appendix A for a detailed SOP of the five-stage intervention.

Phase 1: Spatial reflection and emotional mapping



Figure 3.3 Guided reflection: the first half

Figure 3.4 Guided reflection: the second half

Participants began by identifying areas in their living spaces associated with emotional dissatisfaction or stagnation. They reflected on how clutter or disorder in these areas affected their mental state, guided by principles from symbolic interactionism and behavioral communication theory.

To support the first step of the behavioral framework—Guided Reflection—a set of visual prompts was designed and distributed in two consecutive panels. The full material was split into two parts for layout purposes but intended to be

used together as a cohesive toolkit. Each page presents specific spatial themes (e.g., calm, clarity, abundance), offering a combination of crystal placement tips, emotional intentions, and reflective questions. These visuals served to initiate emotional engagement and spatial anchoring before participants began the object-based intervention.

Phase 2: Visioning an intentional space

Participants then envisioned an ideal emotional atmosphere—such as calmness, focus, or balance—that their environment could embody. This phase encouraged value-based thinking and set the foundation for intentional spatial decisions.

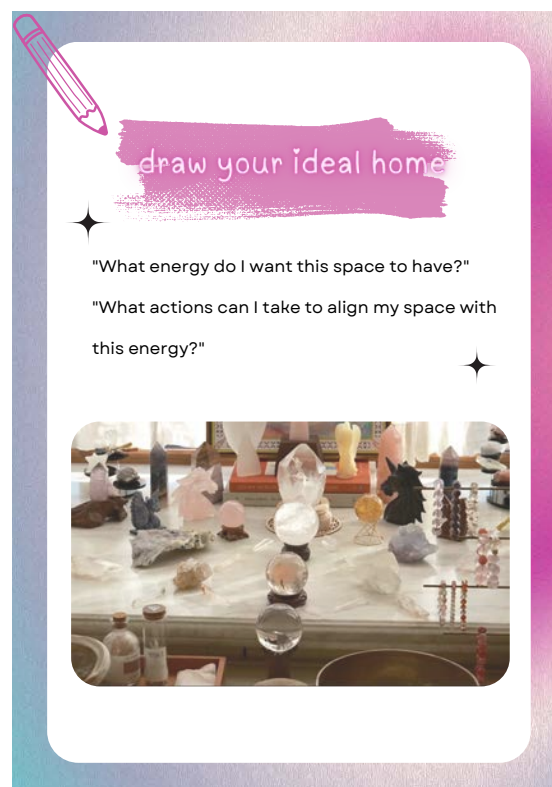


Figure 3.5

Phase 3: Introduction of symbolic objects

Participants were randomly assigned to one of two groups:

- (a) **Crystal group:** Participants selected a crystal from a curated collection with culturally neutral meanings (e.g., grounding, clarity). Each crystal included a brief description. Participants placed the crystal in their chosen space and engaged in regular care rituals such as cleansing, dusting, repositioning, or exposing it to sunlight.
- (b) **Cherished item group:** Participants selected a meaningful personal item (e.g., a photograph, postcard, or handmade gift). These items held emotional value but did not require active maintenance, serving as a baseline comparison for symbolic interaction.

This A/B testing design controlled for order effects and participant bias, enabling clear comparisons in behavioral, emotional, and consumption-related outcomes resulting from the object type.

Phase 4: Value-based reorganization and decluttering

Participants evaluated items surrounding the symbolic object and reorganized them according to whether they aligned with the emotional values defined in Phase 2. This process encouraged balancing emotional attachment with spatial functionality.

Phase 5: Ritualization, feedback, and sustainability

To promote long-term habit formation, participants established personalized maintenance routines. These included weekly check-ins, ritual adjustments (e.g., repositioning), and optional tools such as habit trackers, journaling prompts, or care reminder cards.

Table 3.1 Five-Phase Symbolic Intervention Framework

Stages of Change	Definition	Designed Step	Key Activities
1. Pre-contemplation	Unaware of their problematic behavior and its negative consequences	Recognize the current state of the external living environment	Guided reflection & crystal introduction Description & reflection
2. Contemplation	Recognize that their behavior may be problematic, still feel ambivalent to change	Describe an ideal crystal space	Use colored pencils, oil pastels, or modeling tools to visualize the ideal space
3. Preparation	Start to take small steps toward the behavior change	Introduce the concept of meaningful items	Crystal message-box DIY
4. Action	Intend to keep moving forward with that behavior change	Declutter & optimize existing items	Daily <i>omikuj</i> i draws
5. Maintenance	Intend to maintain the behavior change going forward	Continuous evaluation & adjustment	Bingo cards for task tracking Reward mechanisms

Table 3.1 summarizes the symbolic intervention framework developed for this study, aligning each behavioral stage with a corresponding design step and activity. Drawing from the Transtheoretical Model of Change, the intervention combines emotional reflection, ritual prompts, and gamified task structures (e.g., *omikuj*i draws and bingo cards) to support habit formation and space organization.

Crystal group and cherished item group: procedural distinctions

While both groups followed the same five-phase symbolic intervention framework (awareness → visioning → anchoring → action → maintenance), their interaction with symbolic objects differed in meaningful ways:

Table 3.2 Comparison Between Crystal and Cherished Object Interventions

Element	Group A: Crystal Intervention	Group B: Cherished Object Intervention
Symbolic Object	Crystals (in personalized crystal box)	Personally meaningful object (e.g., photo, gift)
Anchoring Activity	DIY crystal box + daily <i>omikuji</i> ritual	Story sharing: why this object matters
Ritual Mechanism	Shake and draw messages from box (behavioral cue)	Emotional articulation + visible placement
Maintenance Tool	Cleaning bingo cards	Cleaning bingo cards
Goal	Trigger tidying through symbolic ritual and unpredictability	Trigger tidying through emotional attachment and visibility

Both groups placed their symbolic object in a space they wanted to improve. However, participants in the crystal group participated in daily ritual draws, while participants in the cherished item group reflected through narrative sharing and placement of objects. This allowed for a comparison of ritual-based symbolic activation (crystal group) versus emotional-symbolic resonance (cherished item group).



Figure 3.6 This revised version of the crystal *omikuji* was developed based on participant feedback from the initial intervention phase (See Appendix D for the initial design). Key updates include enlarged font, richer visuals, and clearer thematic categorization. Each message is now color-coded to represent symbolic tones (e.g., red for luck, blue for stability, purple for warning). Small action tips are included at the bottom of each slip to encourage reflection or light behavioral tasks. For example, “Take a moment to tidy your space and cleanse your crystals.” The playful and emotionally attuned aesthetic enhanced participant engagement and ritual continuity.



Figure 3.7 This English-language edition of the crystal *omikuji* was created to accommodate the participants' diverse sociocultural backgrounds.

In the crystal group of the behavioral intervention, participants engaged in a multi-sensory, ritual-based interaction using a self-designed "crystal box." This box, assembled and decorated by each participant, contained small folded prompts resembling *omikuji* (Japanese fortune slips). Each time participants shook the box

and drew a slip, they engaged in a moment of symbolic dialogue—an intimate ritual where the crystal appeared to “speak back,” guiding action or reflection.

Portability and spatial flexibility of the crystal box



Portable crystal box

Figure 3.8

The crystal box was intentionally designed to be small, lightweight, and portable, enabling participants to place it anywhere in their environment. Whether on a desk, shelf, windowsill, or bedside table, the position of the crystal was left open-ended—participants were encouraged to move the box according to where they felt change was needed. For example, some placed it in cluttered areas to trigger tidying behavior, while others positioned it in calm corners to maintain a sense of clarity or focus.

The number and size of the crystals were also variable. Each participant received a small curated set, but they were free to add or remove stones based on personal resonance. This flexibility reinforced the idea that the crystal was not a fixed decorative item, but an evolving symbolic anchor whose location and composition could shift in alignment with the user’s mental or spatial needs.

The box’s portability was especially important: some participants reported taking it with them when traveling, using it as a mobile “emotional checkpoint” to reestablish grounding and ritual continuity in unfamiliar spaces. This design decision reflects the concept of symbolic consistency across changing environments,

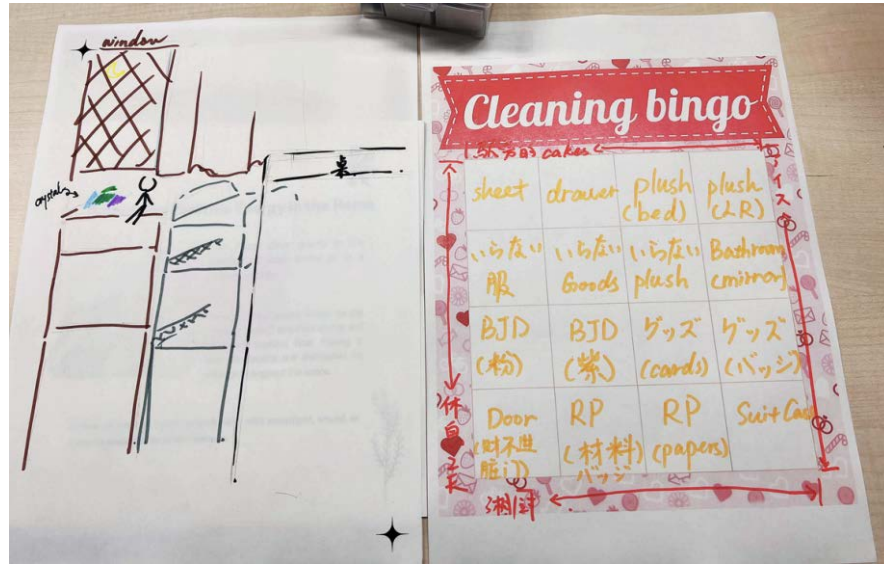
extending the influence of the object beyond a static domestic context.



Figure 3.9 One participant, without prompt, shared a photo of their home setup post-intervention. The image depicted a carefully curated corner with crystals framed by candles and small figurines, indicating not only the aesthetic integration of crystals but their recontextualization as emotionally meaningful objects. This spontaneous documentation exemplifies how participants extended the ritual logic beyond the experiment, embedding symbolic care into everyday space.

This process served not only as a daily micro-interaction but also embedded emotional and behavioral intention into the act of tidying. Participants reported that the randomized draw mechanism enhanced curiosity and emotional connection, making the crystal feel like a companion rather than a static object. The ritual repetition—shake, draw, act—established a personal rhythm and infused meaning into otherwise mundane organizational acts.

To further reinforce habit formation, a “cleaning bingo” card was introduced, allowing participants to customize small tidying tasks across a grid. Each completed row or column unlocked a self-chosen reward, turning spatial care into a gamified and self-directed behavior loop. The bingo card served as a reflective scaffold, while the crystal acted as the emotional trigger. Together, they created a dual structure of extrinsic (reward) and intrinsic (ritual meaning) motivation.



One of the participant's cleaning bingo card

Figure 3.10

3.4. Communication perspective embedded in the design

The intervention was grounded in communication theory, viewing symbolic interaction not merely as verbal but as embodied through actions and spatial choices. Crystals served as nonverbal communicative agents, guiding behavior through their presence, placement, and the rituals associated with their care.

The following theoretical frameworks informed the design:

1. **Symbolic interactionism** (Blumer, 1969): Objects as symbols whose meanings are socially negotiated.
2. **Semiotics**: Objects as signs that convey meaning through physical form and context.
3. **Behavioral communication**: Rituals as repeated, meaning-rich actions that shape and reinforce behavior.

4. **Framing theory:** Interpretation shaped by the subjective lens through which an object is viewed.

Together, these perspectives allowed for a layered understanding of how people construct meaning and regulate behavior through symbolic engagement with their environment.

3.5. Data collection procedures

This study utilized a mixed-methods approach, combining:

1. Pre- and post-intervention surveys;
2. Semi-structured interviews;
3. Visual journaling;
4. Optional submission of photo logs;
5. Supplementary analysis of social media engagement.

These tools captured changes in emotional attachment, spatial organization behavior, and consumption patterns. The photo logs provided visual evidence of symbolic object placement and use over time.

Although advanced statistical analysis (e.g., SEM) was not applied in this study, the structured five-stage model offers a strong basis for future research. Potential extensions include regression or structural equation modeling (SEM) to examine predictive relationships among variables such as emotional attachment (Stage 3), ritual frequency (Stage 4), and mindful consumption outcomes (Stage 5). These techniques would clarify the behavioral logic embedded in symbolic-object interventions.

3.6. Data analysis strategies

Quantitative data were analyzed using descriptive statistics and paired-sample t-tests to examine within-group changes. Between-group comparisons—contrasting

the crystal group and the cherished object group—were conducted using independent-sample t-tests.

To enhance analytical depth in future research, the study proposes employing inferential modeling techniques, such as multiple regression and structural equation modeling (SEM) via SPSS or AMOS. These methods could test the mediating role of ritual frequency (Step 4) in the relationship between emotional attachment (Step 3) and behavioral change (Step 5).

Modeling this potential causal chain would enable a more rigorous evaluation of the behavioral mechanism embedded in the intervention framework and quantify the relative contributions of each stage toward the final consumption outcome.

3.7. Ethical considerations

Participants were informed that the study focused on symbolic behavioral cues rather than spiritual or metaphysical beliefs about crystals. Informed consent was obtained, and participants could withdraw at any time. All visual and written submissions were anonymized. The study received approval from Keio University’s ethics review board.

3.8. Supplementary framing experiment: digital communication of symbolic rituals

In addition to the primary behavioral intervention, this study included a supplementary communication experiment conducted on Instagram. Although the main intervention focused on how ritualized interactions with symbolic objects affect individual space organization and consumption behavior in controlled settings, this additional experiment aimed to explore how such symbolic rituals, when framed visually and narratively, influence public engagement and behavioral imitation in a digital context.

This supplementary study was theoretically grounded in framing theory (Goffman, 1974; Entman, 1993) and social learning theory (Bandura, 1977), and sought to

test the ecological validity of the symbolic design framework. Specifically, it investigated whether affectively framed crystal rituals could be interpreted as emotionally meaningful cues by a broader audience, even when mediated through imagery and storytelling on social media.

The experiment also served to extend the conceptual framework beyond the physical private space to the public representational space of digital culture, thus providing insight into how symbolic behavioral design functions in communicative environments.

The following sections detail the platform selection rationale, experimental logic, audience engagement strategy, and key findings of this exploratory study.

3.8.1 Platform selection: why Instagram

Instagram was selected as the platform for the supplementary communication experiment due to its distinct capacity to support visual storytelling, symbolic framing, and emotionally resonant audience engagement. As a highly visual platform, Instagram allows users to communicate meaning nonverbally through imagery, making it particularly well-suited for representing the material and symbolic qualities of crystals, such as color, translucency, and texture, which play a crucial role in the semiotic analysis of object-based rituals (Highfield & Leaver, 2016; Sheldon & Bryant, 2016).

In addition to its visual orientation, Instagram’s caption feature pairs images with emotionally resonant reflections or personal narratives. This multimodal affordance supports the study’s framing-theoretical perspective, which argues that interpretive meaning arises from experiences constructed within specific social and contextual settings (Goffman, 1974). By combining carefully composed imagery with introspective text, symbolic rituals involving crystals can be understood not simply as decorative gestures but as daily meaning-making practices embedded in emotionally and spatially curated routines (Highfield & Leaver, 2016; Leaver, Highfield, & Abidin, 2020).

In addition, Instagram is deeply embedded in lifestyle communication. It is commonly used to share daily routines, personal reflections, and emotionally curated experiences (Leaver et al., 2020). This makes it a culturally and ecologically appropriate environment for observing how ritual behaviors—such as the

placement or care of symbolic objects—are received and interpreted by others in everyday settings. The platform’s built-in metrics—likes, shares, saves, and comments—also provide a valuable empirical layer for evaluating audience engagement with different narrative and symbolic framings (Djafarova & Rushworth, 2017).

Another factor informing the platform choice is its emotional and aesthetic culture. Instagram emphasizes mood, atmosphere, and spatial composition, all of which align with the symbolic and affective dimensions of crystal-based rituals. Its interface encourages a mixture of authenticity and curation, making it a fertile space for examining how emotionally charged symbolic acts are both performed and perceived (Manovich, 2017).

In this way, the platform becomes not merely a site of dissemination but an extension of the symbolic ritual system—a space where the meaning-making processes central to this study can be publicly represented and socially negotiated. The visual-narrative interface of Instagram makes it possible to test whether behavioral cues embedded in daily crystal care can be translated across physical and digital boundaries, eliciting emotional recognition, mimicry, or reinterpretation from a broader audience.

Taken together, these features make Instagram a uniquely appropriate platform for extending the symbolic intervention from private, space-based contexts to the public, socially shared sphere. In doing so, the study examines not only how individuals engage with symbolic rituals, but also how such rituals can be communicated, interpreted, and potentially adopted within a broader cultural and behavioral ecosystem (Carey, 1989).

This platform choice directly informed the experimental design. By leveraging Instagram’s visual and narrative affordances, the following communication experiment was structured to investigate how symbolic behaviors—particularly those involving crystals—are transformed when represented in emotionally framed, publicly accessible formats.

3.8.2 Design logic

Building on the affordances of Instagram discussed above, this supplementary communication experiment was designed to explore how symbolic rituals—particularly those involving crystals—function when visually externalized and publicly framed

through social media. While the main intervention focused on private, in-situ interactions with symbolic objects, this experiment shifts the lens to the mediated space of digital storytelling. It asks whether such rituals can retain their behavioral and emotional influence when represented as part of everyday lifestyle content.

The experiment draws on framing theory (Goffman, 1974; Entman, 1993) and social learning theory (Bandura, 1977) to examine how affectively framed, narrative-rich rituals can serve as cultural scripts that invite emotional resonance, imitation, and reflection. Rather than emphasizing product-based display, the goal was to assess whether ritualized engagement with symbolic objects could be communicated in ways that elicit meaningful audience interaction—transforming personal behavioral cues into socially intelligible and potentially adoptable practices.

3.8.3 Engagement method

Over the course of one month, the researcher curated and posted 49 pieces of crystal-related content on Instagram. Each post was carefully designed to simulate real-life interactions within private spaces, with attention paid to light quality, compositional balance, object-subject relationships, and spatial intimacy. Captions were written narratively, incorporating first-person reflections, shifts in emotional tone, and subtle cues about intentional behavior.

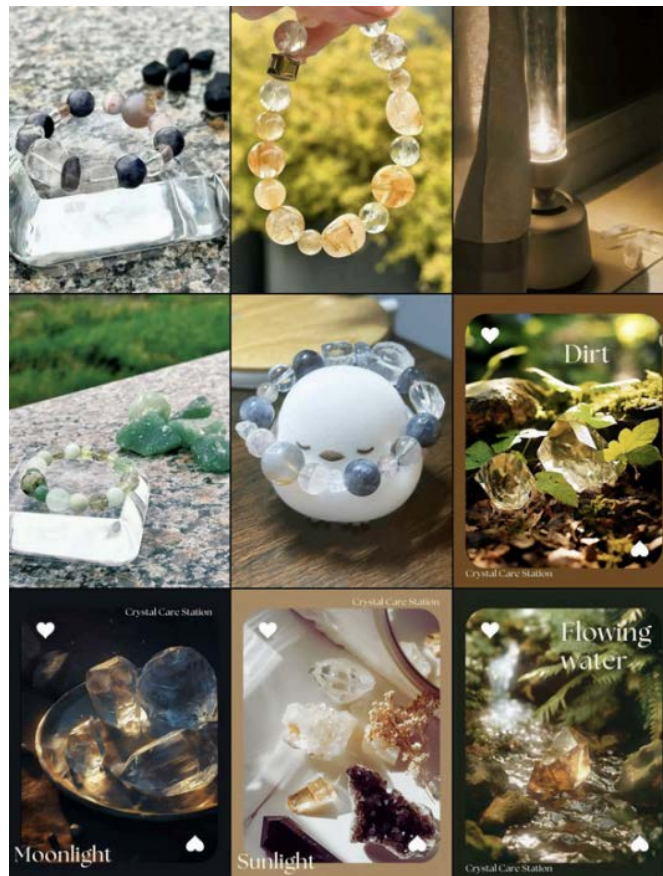


Figure 3.11

Examples of captions include:

1. “Today’s crystal sits in the softest patch of sunlight, helping me clear away unspoken tiredness.”
2. “After tidying my desk, placing this crystal here felt like a quiet signal that I’ve done enough for today.”

These posts deliberately avoided consumerist or product-oriented language. Instead, they framed crystals as nonverbal communicative agents within a ritual system—objects that marked transitions, affirmed completion, or signaled inner states. Aesthetic images were paired with affective texts to deepen the interpretive frame.

Instagram’s native analytics tool, Insights, was used to track audience engagement, including likes, saves, comments, and profile visits. Pre-campaign observations established baseline interaction rates to provide a reference point for post-campaign analysis. The content strategy included two content types:

1. Aesthetic-only posts: Photographs of crystals isolated from human interaction (e.g., crystal on a desk).
2. Emotionally framed ritual posts: Photographs depicting actions (e.g., placing, repositioning, cleansing) embedded within narrative captions.

3.8.4 Key findings

Preliminary results revealed that emotionally framed, narrative-based posts significantly outperformed purely aesthetic content. Posts that depicted meaningful actions—such as using a crystal to mark the completion of a task or to initiate a reflective moment—generated more likes, saves, and shares than static product-style visuals. In total, the campaign reached 3,192 views and resulted in a 16,100% increase in profile visits compared to the baseline. While modest in absolute terms, this surge indicates that viewers responded strongly to symbolically framed content that carried emotional and behavioral cues.

Qualitative analysis of comments revealed two dominant themes (see Appendix C):

1. Observational mimicry – viewers expressing an intent to replicate behavior:
 - (a) “I want to try this too.”
 - (b) “This reminds me to clean my room.”
2. Emotional identification – viewers interpreting the object through their own emotional lens:
 - (a) “This feels so calming.”
 - (b) “It’s like the crystal is listening.”

These patterns align with the theory of vicarious learning, which suggests that individuals adopt behavioral models by observing emotionally resonant actions (Bandura, 1977). In this context, crystals were not merely seen as symbols of belief or branding, but increasingly interpreted as participatory tools for organizing space, managing time, and regulating emotion.

3.8.5 Theoretical reflection

This experiment shows that the symbolic power of crystals extends beyond private rituals when represented through intentional public framing. According to frame analysis theory, behavioral meaning is actively shaped through the interplay of visual aesthetics, personal narrative, and emotional resonance (Goffman, 1974). Through this process, the crystal shifted from a static decorative object to a dynamic communicative medium.

From a semiotic perspective, the crystal functioned as a symbol with multiple meanings. Its physical characteristics—such as transparency, color, and texture—served as signifiers, while its emotional significance (the interpretant) was shaped by the narrative and spatial context in which it appeared (Peirce, 1931; Barthes, 1972). The posts layered connotative meanings onto otherwise denotative visuals, illustrating how symbolic engagement is shaped through framing.

Furthermore, the behavior itself—placing, cleansing, or repositioning—was framed as a small but meaningful ritual. These micro-acts were not presented as spiritual obligations, but as intentional practices that signal internal shifts. The audience’s positive reception of these framed behaviors suggests that symbolic design can function as a tool for soft behavioral guidance, not only within individuals’ homes but also within the participatory culture of digital platforms.

In short, symbolic-object rituals—when presented through affectively charged framing—can serve as subtle behavioral interventions with the potential for social diffusion. What begins as a private act of emotional regulation can, through framing, evolve into a publicly shareable model of spatial care and consumption mindfulness.

3.8.6 Summary

This chapter outlined the design and implementation of a symbolic-object-based behavioral intervention aimed at improving space organization and fostering mindful consumption. Grounded in communication theory and supported by experimental and exploratory components, the study approaches behavior change as an iterative, meaning-making process mediated by symbolic interactions.

The five-stage behavioral model—adapted from Prochaska and Velicer’s Trans-theoretical Model of Change—conceptualizes environmental transformation not as a purely functional task, but as a communicative negotiation between the self and space. Symbolic objects, especially crystals, act as nonverbal dialogue partners that prompt micro-actions, sustain attention, and gradually reinforce habits rooted in emotional awareness.

Through a randomized controlled design, the study contrasted the effects of ritualized symbolic objects (crystals) with cherished sentimental items. Mixed-methods data collection, including surveys, interviews, and photo documentation, allowed for a multi-dimensional understanding of how emotional attachment, ritual frequency, and spatial reorganization interact to shape behavior.

The supplementary social media experiment further extended the study’s scope, demonstrating that symbolic rituals retain behavioral salience when translated into digital storytelling. Crystals, when framed through narrative and emotional tone, emerged as communicative signs capable of eliciting identification, imitation, and reflection from a broader audience.

Together, these components position symbolic design not only as a personal tool for environmental regulation, but also as a scalable intervention model for promoting sustainable behavior. By leveraging framing, ritual, and object-mediated communication, the study opens pathways for future research on how design can activate intentional relationships between space, self, and consumption.

Chapter 4

Research findings

4.1. Participant profiles and group overview

A total of 30 participants were recruited for this experimental study, drawn from Keio University’s Graduate School of Media Design (KMD). Participants were full-time master’s students residing in Japan during the study period. The homogenous sample ensured consistency in educational and cultural background while allowing individual variation in personal living habits and consumption experiences.

The study was conducted over a 4-week intervention period.

Participation was voluntary, and all participants received free crystal stones as compensation for their involvement.

Demographic characteristics (N = 30)

Table 4.1 Participant Demographics

Variable	Distribution
Age Range	24–27 (Mean = 25.5 years)
Gender	19 Female (63%), 11 Male (37%)
Housing Type	70% Apartment, 10% Shared Housing, 20% Dormitory
Occupation	100% Students

Participants were randomly assigned into two equal groups (n=15 each):

1. Group A (crystal group): Participants used crystals as behavioral cues.
2. Group B (cherished item group): Participants used cherished personal items (e.g., photos, gifts) as comparative stimuli.

(An exploratory social media analysis was conducted separately to supplement laboratory findings; see Section 4.2.4).

4.2. Quantitative results

4.2.1 Changes in space organization motivation

Space organization motivation was measured pre- and post-intervention using a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree).

Table 4.2 Comparison of Pre-score and Mean Change Between Group A and Group B

Measurement	Group A (Crystal)	Group B (Cherished Item)
Pre-score	2.87	2.93
Post-score	4.25	3.72
Mean Change	1.38	0.79

Statistical analysis (paired t-tests):

- (a) Group A (crystal): $t(14) = 5.62$, $p < 0.001$
- (b) Group B (cherished item): $t(14) = 3.18$, $p = 0.006$

Both groups showed significant improvement, but the crystal group demonstrated stronger behavioral engagement through the intervention.



Figure 4.1 *

(a) Before Intervention — Group B

Figure 4.2 *

(b) After Intervention — Group B

Figure 4.3 Group B workspace before and after the intervention. The participant’s space became cleaner and more intentional. A photo with close friends was added as a symbolic anchor, reinforcing emotional continuity and personal identity.

4.2.2 Emotional attachment and ritual behavior

Emotional attachment was assessed via the adapted Material Values Scale (Richins, 2004), while ritual behavior frequency was reported on a 5-point scale.

Table 4.3 Comparison of Emotional Attachment and Ritual Behavior Frequency

Measurement	Group A (Crystal)	Group B (Cherished Item)
Emotional Attachment	4.40	4.67
Ritual Behavior Frequency	4.20	2.20

Paradox interpretation:

Although cherished items elicited stronger sentimental attachment, they typically required no active care. In contrast, crystals’ material properties and cultural symbolism invited ongoing maintenance (e.g., cleansing, repositioning), naturally fostering ritualized behavioral routines.

4.2.3 Impact on consumption and purchase decisions

Mindful consumption was evaluated using adapted items from the Mindful Consumption Scale (MCS).

Table 4.4 Comparison of Pre-purchase Reflection Between Group A and Group B

Measurement	Group A (Crystal)	Group B (Cherished Item)
Pre-purchase Reflection	4.03	3.48

Between-group comparison (independent t-test):

$t(28) = 2.89, p = 0.007$

Crystals appeared to facilitate stronger reflective processes during purchase decision-making, compared to cherished items.

4.2.4 Exploratory social media analysis

To triangulate laboratory findings, an exploratory Instagram content campaign was conducted between May 9 and June 2, targeting a broader public audience. This analysis aimed to observe general audience interaction with crystal-related lifestyle content beyond the controlled experimental context.

Content performance summary

- Total posts: 49
- Total views: 3,192
- Total interactions: 481

- New followers: +18
- Profile visits: 324 (baseline 2 visits; +16,100% increase)
- External link taps: 8

Audience composition

- 58.6% from existing followers
- 41.4% from non-followers (explore/discovery reach)

Content type engagement

Table 4.5 Content Type by Percentage of Views and Interactions

Content Type	% of Views	% of Interactions
Static Posts (Images/Carousels)	93.1%	94.5%
Reels	3.9%	2.6%
Stories	2.9%	2.8%

Top performing content themes

Table 4.6 Performance of Crystal-Themed Social Media Posts

Post Date	Views	Theme
May 9	189	Crystal bead bracelet (blue tone)
May 10	179	Crystal bead bracelet (pink tone)
May 10	150	Mother’s Day message
May 11	146	Crystal lifestyle placement

4.2 Exploratory framing test on Instagram

While independent from the experimental groups, an exploratory social media campaign was conducted to assess audience receptivity toward crystal-based content. Posts varied in framing—some featured standalone aesthetic images, while others embedded crystals within emotionally resonant narratives. This allowed for comparison between purely visual appreciation and story-based symbolic engagement.

Table 4.7 Engagement Patterns by Post Type

Post Type	Likes	Comments
Aesthetic-only posts	Low	High
Narrative-framed posts	High	Low

As shown in Table 4.7, aesthetic-only posts—though visually appealing—elicited mostly surface-level responses, such as short comments (“So pretty!”), with relatively fewer likes. In contrast, narrative-framed posts received a higher number of likes, but fewer comments. This suggests that stories prompted emotional resonance and internal reflection, while requiring no further elaboration from the audience.

This dynamic supports the broader communicative insight that symbolic meaning is not inherent but assigned through context. In both the experimental setting and the digital space, crystals functioned more effectively as behavioral or emotional anchors when placed within interpretive frameworks—ritual descriptions, mood-setting routines, or personal reflections.

From a symbolic interactionist perspective, this aligns with the core principle that objects derive their influence from the meanings negotiated through social engagement. Framing theory further suggests that emotionally charged or identity-relevant narratives amplify perceived meaning and user receptivity. On platforms like Instagram, where aesthetic saturation is high, narrative becomes a critical differentiator.

These findings indicate that designing symbolic consumption experiences, physical or digital, requires more than visual appeal. Narrative depth, emotional

relevance, and contextual meaning-making are essential for audience engagement and behavioral impact.

4.2.5 Supplementary insights from initial jewelry survey

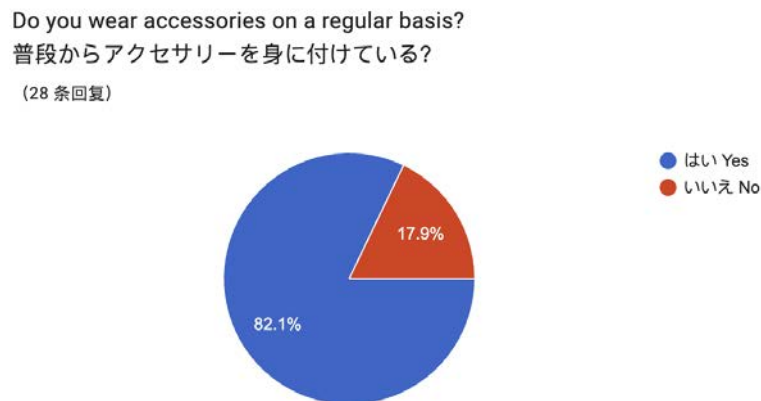


Figure 4.4 Accessory wearing habit among Info Session participants (N = 28)

In the first-year student information session for the Anya Healing project, the crystal company with which the researcher collaborated, a brief questionnaire was conducted to understand the baseline attitudes of the participants toward accessories and emotionally meaningful objects. Among 28 respondents, over 82% reported wearing accessories regularly, indicating a high degree of behavioral receptivity toward symbolic objects in daily life. When asked about their favorite jewelry brands, participants mentioned both luxury names such as Tiffany, Cartier, and Van Cleef & Arpels, as well as culturally embedded brands like Iwakura. This mixture of high-end and spiritual-aesthetic preferences suggests that symbolic value—rather than pure material worth—plays a central role in how individuals engage with adornment.

Responses to the prompt “What is the most memorable piece of jewelry you own?” revealed that emotional attachment often derived from personal stories, relationships, or gift-giving rather than price. Answers included references to handcrafted items, gifts from loved ones, and specific stones like aquamarine or crystal, confirming the notion that meaning emerges through narrative context.

Furthermore, nearly half of participants received their jewelry from family, friends, or romantic partners, reinforcing the hypothesis that symbolic objects gain emotional salience through interpersonal ties. These findings validate the emotional anchoring mechanism described in this study and emphasize the potential of crystals to occupy a similar narrative-symbolic space in participants' lives.

4.2.6 Symbolic readiness in public setting: Info Session reflection survey

To triangulate the main findings, a short symbolic reflection activity was conducted during a second year student information session using a crystal draw-and-questionnaire format. Twenty-two participants responded to prompts exploring their relationship with their living environment and interest in symbolic objects such as crystals.

Participants described their most valued spaces in emotionally rich, sensory terms—such as sunlit windows, cozy corners, or private balconies—indicating that individuals naturally assign affective meaning to spatial environments. Conversely, spaces cited for improvement (e.g., closets, desks, bathrooms) were described as cluttered, chaotic, or stress-inducing, echoing the emotional burden of disorganization seen in the main experiment.

When asked about their ideal “spatial energy,” participants described multi-sensory, symbolic qualities like “sunlight and music,” “the smell of coffee,” and “greenery with flowing air.” Notably, when asked whether they would use crystals, most indicated a preference for visible, emotionally significant placements—desks, windowsills, or entrances—and cited reasons such as “emotional grounding” or “mindfulness support.”

These results, though informal, offer strong ecological support for the symbolic intervention model. Even outside a structured study, participants responded intuitively to symbolic prompts and demonstrated emotional-symbolic awareness of space. The findings validate the underlying logic of the five-stage framework and suggest its broader applicability beyond controlled contexts.

4.3. Qualitative results

4.3.1 Theme 1 — Crystals as behavioral anchors

As introduced in the earlier Proof-of-Concept section, a preliminary test was conducted during the KMD Forum, where a crystal was placed beside a table at the event exit. Participants were invited to use the space to briefly clean out their bags by removing flyers, receipts, or trash. Rather than revisiting the procedural aspects, this section analyzes the test from a symbolic interactionist lens to contrast it with the more ritualized interventions described earlier.

In participant interviews and reflections, crystals were often described as nonverbal agents that prompted spatial awareness and care:

1. “Every time I purify the crystal, I clean the room. The crystal kind of asks me to keep things in order.”
2. “Placing the crystal made me remove clutter to create space for it.”

In these cases, crystals served not merely as decorative objects, but as communicative anchors embedded within personal routines. Their power came from repeated, intentional interactions—such as cleansing, repositioning, or ritual framing—that gradually turned them into behavioral triggers for mindful tidying.

By contrast, in the KMD Forum test, participants did not own the crystal, nor were they involved in any ritual of care. Although the crystal was visually present, it functioned more as a passive aesthetic prompt within a spatially purposeful setup. The cleaning behavior was likely activated by situational factors: standing at the exit, with a cluttered bag and a visual cue that subtly suggested “cleaning.” As one participant noted:

“I didn’t expect to feel embarrassed about the mess in my bag, but seeing the crystal made me tidy up first.”

This moment was a spatially framed behavioral nudge, akin to the way checkout counters in supermarkets prompt last-minute organization—not a true instance of symbolic interaction. Without repeated, personalized interaction, the crystal failed to act as a communicative anchor.

This contrast reinforces a key theoretical insight: it is not the crystal itself that holds power, but the meaning continuously assigned to it through ritual practice. The effectiveness of crystals as behavioral anchors depends not on their material qualities or aesthetic appeal, but on how users interact with them over time. Symbolic value emerges when objects are framed, ritualized, and emotionally embedded into one's lived space. Passive visual cues may initiate momentary behaviors, but sustained change requires emotionally anchored, participatory engagement.

4.3.2 Ritualization and emotional regulation

Participants reported developing ritual care routines involving cleansing, repositioning, and mindful observation:

1. "Caring for the crystal has become a calming daily routine."
2. "When my space is tidy and the crystal looks clean, I feel emotionally balanced."

These object-centered routines contributed both to environmental care and emotional self-regulation.

4.3.3 Consumption mindfulness

Participants reported applying crystal-influenced reflection to purchasing decisions:

1. "Before buying, I often think whether this item fits into my crystal space."
2. "I stopped buying things that might disrupt the peaceful atmosphere I've built."

Through repeated interaction, crystals became symbolic checkpoints influencing consumption choices.

4.4. Synthesis of key findings

This mixed-methods study offers several integrated insights:

1. Behavioral engagement: Crystals promoted stronger daily engagement with space organization compared to cherished items.
2. Emotional function: While cherished items evoked sentimental attachment, crystals supported active emotional regulation through ritual care.
3. Consumption reflection: Crystal interaction enhanced pre-purchase reflection, supporting mindful consumption habits.
4. External engagement: Exploratory social media findings suggest preliminary external audience interest in crystal-centered lifestyle narratives.

These results support the idea that crystals, as symbolic objects, contribute to meaning-making and behavioral patterns within personal living spaces (Blumer, 1969).

Limitations

1. Small sample size (N=30) limits statistical generalizability.
2. Homogeneous KMD student population may not reflect broader demographics.
3. Social media analysis was exploratory and not experimentally controlled.
4. Long-term sustainability of behavioral changes remains unverified.

In summary, the results presented in this chapter provide preliminary empirical support for both research questions. Regarding RQ1—whether symbolic interactions with objects such as crystals can foster space organization—the data suggest that ritual-based engagement significantly enhanced participants’ spatial awareness and motivation to maintain tidiness. Participants in Group A, who engaged in ritualized care of crystals, demonstrated more consistent organizational behaviors and emotional attachment to their spaces compared to Group B.

As for RQ2—whether such interactions influence consumption behavior—several participants reported heightened sensitivity to their purchasing decisions, often describing an increased tendency to pause, reflect, and assess purpose before acquiring new items. While these reflections were self-reported and preliminary, the combination of quantitative improvements in space-related scores and qualitative accounts of mindful evaluation suggests that symbolic rituals may serve as effective emotional and cognitive anchors.

Taken together, the findings indicate that small, emotionally charged symbolic acts—particularly when framed as daily rituals—have the potential to influence both spatial habits and consumption mindsets. These observations form the basis for deeper theoretical discussion in the next chapter, where the implications of symbolic interactionism, behavioral communication, and ritual framing are explored in relation to the study’s outcomes.

Chapter 5

Discussion and future works

5.1. Discussion

This chapter discusses the findings in relation to the research questions and theoretical foundations. By drawing from symbolic interactionism, behavioral communication, and semiotic theory, the chapter analyzes how crystals functioned not merely as objects but as communicative mediators within a ritualized behavioral system.

5.1.1 Ritualized symbolic objects and space organization behavior

This study confirms that symbolic objects—particularly crystals—can serve as effective behavioral anchors that support spatial organization through ritual engagement. Unlike cherished items that evoke passive sentimental attachment, crystals in the A group were embedded in a designed interaction loop involving tactile, randomized, and self-reflective behaviors.

Participants did not merely receive a crystal. They constructed a DIY crystal box, decorated it with personal intention, and filled it with *omikujī*-style slips. Shaking the box and drawing a message became a daily ritual of symbolic dialogue, in which the crystal was not just seen but “consulted.” This act of drawing a slip transformed the crystal from a static object into a communicative partner—one that appeared to prompt reflection, action, or focus.

Complementing this ritual was the cleaning bingo card, a gamified task board where participants set personalized tidying goals. Completing a row or column unlocked a reward, reinforcing routine maintenance. Together, the crystal box and bingo system combined intrinsic emotional anchoring with extrinsic motivational

feedback—bridging symbolic meaning with behavioral scaffolding.

These findings suggest that symbolic ritual, when emotionally resonant and behaviorally repeatable, creates a stable mechanism for habit formation. The physicality of the crystal, the surprise of randomized *omikujī* draws, and the visible progress of bingo cards turned space care from obligation into a reflective, semi-playful, and emotionally rewarding process.

These outcomes reflect the principles of proxemics, which emphasize that spatial arrangements and object placement carry psychological and cultural significance (Hall, 1966). In this context, the crystal functioned as a spatial anchor, recasting disordered areas as sites of intention. The performative nature of the ritual further shifted the meaning of clutter—not merely as a sign of disorganization, but as a communicative disturbance open to resolution through action.

5.1.2 Extensions to symbolic interactionism and semiotic communication

While Blumer’s symbolic interactionism traditionally emphasizes meaning as a process negotiated between individuals, this study suggests that meaning can also emerge through interaction with symbolic material (Blumer, 1969). Participants engaged with the crystal as a semiotic partner embedded within their environment—its placement, texture, and ritual use offered a form of nonverbal communication.

The crystal box illustrated this shift. Rather than passively “containing meaning,” the object was situated within a communicative sequence: shaking, drawing, reflecting, and tidying. Each step contributed to the perception of the crystal not merely as decorative or special, but as responsive and participatory. This reflects Peirce’s view that a sign acquires interpretive depth through repeated, context-bound interaction.

Together, the box, its contents, and the surrounding behaviors formed a symbolic system in which meaning was not fixed but continually co-produced. Participants began to perceive their space not as a neutral background, but as a communicative environment—one in which symbolic cues invited emotional clarity, focused attention, and intentional care.

Ritual dialogue through *omikujī* framing

A clear example of symbolic layering emerged through the use of *omikujī*-style crystal slips. These slips were more than simple prompts—they acted as tools for ritual dialogue, translating abstract emotional intentions into structured symbolic encounters. Borrowing from the tradition of Japanese *omikujī* (temple fortune slips), participants engaged in a familiar yet recontextualized sequence: shake, draw, read, and respond.

Viewed through a symbolic interactionist lens, messages like *Daikichi* (great luck) or *Kyō* (misfortune) functioned as emotionally charged cues, immediately activating personal frames of meaning. Rather than receiving them passively, participants interpreted the messages in light of their current circumstances, imbuing each draw with a sense of intentionality and emotional relevance. The emotional tone of each “fortune” shaped how the subsequent action was perceived, working much like an anchoring mechanism in a ritualized setting.

Each slip also offered a practical suggestion—such as “Spend time cleansing your crystal” or “Use your crystal to clarify a current decision.” These behavioral cues reflected the principles of behavioral communication, turning intangible emotional needs (e.g., stability, clarity, release) into accessible, embodied actions. Participants understood these not as prescriptive rules, but as personally resonant invitations to act.

Within this system, the crystal served as the behavioral anchor. Depending on the fortune, it was used to consolidate positive momentum (“place it to reinforce clarity”), restore balance (“recharge it in sunlight”), or release emotional weight (“use it to let go of what no longer serves you”). The ritual dynamic—anchored by the object, shaped by the message, and enacted through space—transformed each interaction into a moment of self-guided regulation.

This process shows that meaning is not embedded in the object alone, but emerges through how objects are framed, interpreted, and ritualized. The interplay between crystal and *omikujī* reveals the potential of symbolic design to support mindful behavioral shifts through semiotic engagement and emotional relevance.

Updated message card: offering emotional optionality

While the traditional *omikuji*-style slips—with their randomized fortunes like *Dai-kichi* (great luck) or *Kyō* (misfortune)—offered symbolic intensity and narrative intrigue, participant feedback revealed a spectrum of emotional responses. Some found the suspenseful structure engaging, while others expressed discomfort upon receiving negative fortunes, which occasionally diminished their motivation to continue the activity.

In response, a complementary version of the message card was introduced. This redesigned format omitted explicit fortune rankings and instead highlighted the crystal's name, its symbolic keywords, and a gentle affirmational message. Unlike the randomized draw of the *omikuji*, this version allowed participants to freely choose the crystal message that resonated with them in the moment.

By offering both the randomized ritual and the self-directed option, the design embraced emotional optionality. Participants could either immerse themselves in symbolic tension or opt for reflective calm, depending on their readiness and preferences. This dual-path approach upheld the principles of ritual interaction and semiotic framing, while fostering greater emotional safety, autonomy, and relevance.



Figure 5.1

5.1.3 Crystals as mediators between clutter and mindful possession

A notable outcome of this study was the shift from organizing space to reflecting on consumption. As participants engaged in rituals with their crystals—cleaning them, drawing messages, completing small tasks—they began to approach new acquisitions more deliberately, questioning what truly belonged in their space.

In interviews, many described evaluating potential purchases based on whether the item aligned with the atmosphere they had cultivated. The crystal’s symbolic presence became a subtle point of reference: Would this disrupt the balance? Did it hold meaning? Was it necessary?

This change suggests that symbolic rituals can reshape the logic of ownership. Clutter was no longer viewed solely in terms of quantity, but in terms of symbolic mismatch. Mindless accumulation conflicted with the emotional coherence participants were trying to create. In this sense, the crystal mediated not only the relationship between self and space, but also between desire and decision—supporting a more intentional approach to possession.

These dynamics reflect how ritualized symbolic objects can facilitate internal negotiation, in line with the principles of relational dialectics (Baxter & Montgomery, 1996). The tension between acquiring and letting go, between emotional attachment and practical need, took shape both mentally and materially, with the crystal acting as an anchor for continuous identity formation.

Disentangling mechanisms of symbolic influence

While crystals were the primary symbolic object in this intervention, their influence emerged through several overlapping mechanisms. First, their physical properties—such as smoothness, fragility, and visibility—appeared to enhance participants’ sensory engagement and draw sustained attention. Second, ritualized actions (e.g., *omikuji* draws, crystal cleaning) introduced behavioral rhythms that encouraged regular, low-effort interaction. Most notably, crystals acted as symbolic mirrors, allowing participants to project and reflect on their internal states and values through narrative framing and spatial practice.

Participant accounts capture this layered experience: some pointed to the

crystal’s visual placement as a gentle daily reminder; others focused on the calming effect of the ritual process; and several described emotional connections that developed through stories linked to the object. These reflections suggest that the behavioral impact of symbolic objects like crystals cannot be attributed to a single factor. Instead, their anchoring effect arises from the interplay of physical form, ritual engagement, and personal meaning.

5.1.4 Behavioral communication and ritualized habit formation

This study explored how different symbolic mechanisms influenced participants’ behavior toward their living spaces. Although both Group A and Group B followed the same five-stage intervention model, their modes of engagement diverged. Group A incorporated crystals into a daily *omikuj*i-based ritual, while Group B worked with personal items accompanied by narrative reflection.

In Group B, each participant selected a meaningful object—such as a photo, handmade gift, or souvenir—and shared the story behind it during the preparation phase. The item was then placed in a space they wished to improve, followed by completion of a cleaning bingo card. These objects acted as emotional anchors, evoking feelings of care, memory, or personal responsibility. Several participants reported that maintaining a clean environment around the item felt important—even necessary—driven by their attachment and respect toward the object.

By contrast, Group A’s engagement with crystals extended beyond symbolic association. Through the daily ritual of shaking a crystal box and drawing a message slip, participants received small suggestions or reflective prompts that encouraged them to tidy, pause, or engage with their environment in mindful ways. This regular interaction transformed the crystal from a passive token into an active element in their routine. Many described the crystal as “guiding” or “reminding” them—suggesting that the ritual fostered a sense of ongoing dialogue.

While both groups showed improvements in spatial organization, their patterns differed. Group B tended to keep the area around their chosen object clean, but this behavior rarely extended beyond that localized space. In contrast, Group

A often reorganized more broadly and developed additional rituals, such as placing incense near the crystal or rearranging the box weekly. The structure of the *omikuji* ritual—combining repetition with symbolic interpretation—seemed to support more sustained and widespread behavioral maintenance.

This comparison points to a distinction between emotional initiation and behavioral continuity. While emotionally significant objects can trigger change, long-term engagement appears more likely when symbolic meaning is paired with repeated, low-effort actions. The crystal ritual provided a structure for such repetition, offering not only emotional resonance but also a rhythm of decision-making, environmental interaction, and evolving personal investment.

These results are consistent with prior work in symbolic interactionism and behavioral communication, which emphasize that durable change is often supported by visible, recurring cues grounded in familiar cultural forms. In this context, crystals became more than decorative objects—they formed part of a daily practice that reinforced attentional focus, emotional clarity, and intentional action within participants' living environments.

5.1.5 Cultural narratives and framing effects on engagement

Although this study was not designed as a formal cross-cultural comparison, the diverse backgrounds of the participants still revealed how cultural experience shapes the way people read symbolic objects. Participants from East Asian settings often stressed spatial harmony and the flow of energy, whereas those from Western settings linked crystals more to self-care, emotional balance, and personal reflection. Even in one shared environment, interpretations differed according to the cultural lens each person brought to the task.

Such differences mirror long-standing observations in cultural psychology and anthropology. It has been observed that collectivist cultures—common in East Asia—often prioritize spatial balance and relational harmony in everyday practices (Hall, 1976; Triandis, 1995). Participants with these backgrounds placed crystals to achieve visual balance or a *feng-shui* effect, treating them as instruments for regulating the atmosphere of a room. By contrast, participants from

more individualist cultures—such as the United States—spoke of crystals in terms of mood regulation, emotional tracking, and reflective self-care. This tendency corresponds to Markus and Kitayama’s proposal that cultural models of the self guide the meanings assigned to objects and practices (Markus & Kitayama, 1991).

The Instagram trial added another angle. Viewers from East Asian regions discussed the crystal’s symbolic context, while viewers from Western regions focused on personal feelings or identification with the post. Prior studies of social media use report similar patterns, where styles of engagement mirror deeper cultural preferences for self-expression or interpersonal meaning (Kim, Sohn, & Choi, 2011).

Taken together, these patterns show that cultural context influences both the meanings people give to symbolic objects and the ways they choose to engage with them. Crystals resonated not simply because of their physical form, but because they carried broader associations—healing, clarity, intentional living—that each culture filtered in its own way. Posts that placed crystals in everyday routines—tidying, relaxing, setting goals—drew more attention than purely aesthetic images, suggesting that narrative framing rather than the object alone generated a sense of personal relevance.

Recognizing these cultural frames matters for symbolic design. In one culture, a crystal may be viewed as a spiritual aid; in another, as a design accent or keepsake. Exploring such differences can clarify how emotional attachment, daily habits, and symbolic resonance develop within specific cultural settings. Replicating similar interventions across a wider range of regions would deepen our understanding of how symbolic communication works from one context to another.

5.1.6 Cultural narratives and framing effects on engagement

Practically, the study suggests that intentional integration of symbolic objects into everyday environments can nudge users toward not only better organization but also more sustainable consumption. By reframing space as a communicative system that requires attention and harmony, individuals began to make more

selective, deliberate purchasing decisions.

Rather than advocating minimalism through removal, the crystal method encouraged mindful addition—only bringing in items that maintained spatial and emotional coherence. This opens possibilities for designing consumer environments and product experiences that leverage symbolic interaction and emotional resonance to promote long-term sustainability.

Beyond encouraging mindful consumption, this study suggests that behavioral interventions using symbolic objects like crystals may promote broader sustainable living practices. Participants who regularly interacted with their crystals also reported reducing unnecessary purchases, improving organization, and discarding fewer useful items. The symbolic object acted as a checkpoint for more conscious decision-making.

These insights have practical relevance for interior design, education, and workplace wellness. For instance, introducing symbolic objects into shared environments—like classrooms or offices—could foster routine-based self-regulation and space care. By embedding these objects into emotionally resonant routines, users may gradually internalize sustainable values and practice them across contexts.

5.1.7 Theoretical contributions and model refinement

This research contributes to theories of symbolic interaction, behavioral semiotics, and ritualized habit formation. Three theoretical insights emerged:

1. **Symbolic Anchoring:** Crystals act as emotional regulators and behavioral triggers, extending the semiotic model from interpretation to embodied interaction.
2. **Micro-Ritual Loop:** Repeated low-effort behaviors (e.g., wiping, repositioning) generate feedback loops that sustain attention and engagement.
3. **Framing Sensitivity:** The meaning and effectiveness of symbolic objects depend heavily on how they are culturally and narratively framed.

A refined model is proposed, showing how symbolic objects function within a layered system of spatial cues, emotional resonance, and ritual behavior. Future

diagrams may illustrate how symbolic engagement influences both micro (daily routine) and macro (consumption orientation) patterns.

The structure of this five-stage behavioral model also lends itself to statistical validation through multivariate techniques. Although advanced modeling was beyond the scope of this study, future research could apply structural equation modeling (SEM) to test whether emotional attachment (Step 3) predicts mindful consumption (Step 5), potentially mediated by ritual frequency (Step 4). Such modeling would allow empirical evaluation of the internal logic of the intervention framework, helping refine how symbolic objects influence sustainable behavior change.

5.2. Limitations and directions for future research

This study confirms that symbolic decorative objects, specifically crystals, can serve as effective behavioral anchors for initiating and maintaining tidying behaviors. Unlike cherished items that evoke emotional attachment but remain passive in space, crystals required active physical care—such as cleansing or repositioning—which helped embed them into participants’ daily routines. These repetitive actions formed low-effort rituals that promoted attentiveness toward space. Quantitative results showed that participants in the crystal group exhibited significantly stronger increases in spatial organization motivation than those in the cherished item group ($t(14) = 5.62, p < 0.001$). Qualitative feedback reinforced this trend, with participants describing crystals as “silent reminders” that consistently signaled the need to care for their environments.

However, this symbolic communicative function depends on sustained interaction. For example, in a supplementary activity at the KMD Forum, a crystal was placed near a table where participants cleaned out their bags. In this case, the behavioral response—removing clutter—appeared to result primarily from spatial factors, such as the placement of the table at the event exit, rather than the crystal’s presence. Without ownership or ritual engagement, the crystal served as a passive visual prop rather than a communicative anchor. This emphasizes the importance of ritualized personal interaction in activating symbolic meaning and sustaining behavioral influence.

Several limitations must be acknowledged:

1. Sample homogeneity: The participant group was composed entirely of KMD graduate students in Japan, limiting demographic diversity. Cultural receptiveness to crystals may vary significantly across populations.
 - (a) While the core experimental sample was demographically homogeneous, an exploratory social media campaign was conducted to broaden audience engagement and test the generalizability of crystal-centered narratives. Although preliminary data indicated positive reception among broader Instagram users, the total number of interactions remained limited, which prevented detailed demographic segmentation, such as by age group, lifestyle, or cultural background. Consequently, while the social media extension offered valuable external triangulation, it could not fully overcome the homogeneity of the core sample, nor reveal whether different user segments respond differently to symbolic cues like crystals.
 - (b) In the meantime, although the main experimental sample was limited in scale, a supplementary reflection activity conducted during a public student info session revealed consistent symbolic and emotional patterns. Participants readily articulated meaningful spatial associations and displayed strong interest in using crystals as behavioral prompts. This informal yet insightful dataset reinforces the ecological validity of symbolic behavioral design.
2. Short duration: The four-week study period was sufficient to observe initial habit formation but not long enough to assess the durability of behavioral change. As a result, it remains unclear whether participants' tidying routines or consumption reflections would persist over time without additional intervention.

However, the five-stage intervention model was intentionally designed as a cyclical and repeatable structure, rather than a one-time behavioral push. Participants were encouraged to revisit and adapt the stages according to

their evolving needs. Several participants voluntarily reported that they planned to maintain crystal care routines or apply the steps to other areas of their space, suggesting early signs of ritual internalization.

Future studies should conduct longitudinal follow-ups to examine the sustainability of ritual-based symbolic behavior and test whether repeated cycles further deepen emotional attachment and behavioral commitment.

3. Object type limitation: While this study introduces a transferable framework of Ritualized Symbolic Interaction (RSI), the focus on crystals as the primary symbolic object may raise concerns about generalizability. Crystals often carry pre-existing symbolic weight—associated with healing, energy, and intention—which could have amplified the level of ritual engagement observed in the crystal group.

However, an A/B testing structure was implemented to explore whether similar behavioral effects could emerge through interaction with alternative symbolic items. In the cherished item group, participants used emotionally meaningful objects—such as handmade gifts or personal photos—to anchor their space. Although both groups engaged in space organization, the pathways differed: participants in the crystal group built meaning through repeated ritual gestures (cleansing, drawing messages), while those in the cherished item group began with emotional resonance and then gradually expanded their care to the surrounding space.

Importantly, it is not the crystal's innate quality that drives change, but the meaning that individuals project onto it—and the behavioral rituals that sustain this meaning. The experiment suggests that the mechanism of RSI may not depend on the crystal per se, but on how any symbolic object becomes embedded in practice through emotional attachment and intentional engagement.

These findings offer early support for the broader applicability of RSI. Future research might expand the range of objects and cultural contexts involved, to better understand how symbolic richness, familiarity, and personal narrative shape the strength and trajectory of behavioral anchoring.

4. Comparative ambiguity: While cherished items evoked emotion, their passivity limited behavioral engagement. Further study could explore how emotional attachment might be activated through behavioral rituals, potentially combining symbolic and sentimental value.
5. Activity context distinction: The bag cleaning activity, while initially intended as a micro-intervention to test symbolic influence in public space, did not involve crystal ownership or ritual care. The behavioral response observed was more accurately attributed to spatial design and contextual affordances (e.g., exit location, need for surface organization) rather than symbolic communication. Future studies should clearly differentiate between spatially driven nudges and symbolically driven rituals, and explore how their interaction may either reinforce or dilute behavioral effects.
6. Lack of advanced statistical analysis: While significant effects were observed, future studies could employ regression analysis or structural equation modeling to test the interactions between emotional attachment and behavioral outcomes.

Future directions include:

1. Exploring long-term behavioral retention through longitudinal follow-ups.
2. Conducting cross-cultural studies to examine how symbolic interpretation and ritual adoption vary across different cultural settings.
3. Strengthening the empirical foundation of RSI through more rigorous quantitative testing with larger and more diverse participant samples.
4. Integrating physiological or neurocognitive indicators (e.g., stress reduction, attention markers) to better understand the internal shifts prompted by symbolic rituals.
5. Comparing the effectiveness of symbolic cues and spatial nudges—individually and in combination—under controlled experimental conditions to assess their respective and synergistic effects on behavioral change.

Theoretical contribution: Ritualized Symbolic Interaction (RSI)

To address the need for sustainable and emotionally resonant behavior change, this study proposes Ritualized Symbolic Interaction (RSI)—a framework that integrates symbolic interactionism, semiotics, and behavioral habit theory. RSI highlights how repeated, low-effort rituals anchored by symbolic objects (e.g., crystals) can subtly guide spatial awareness and mindful consumption without requiring severe lifestyle changes.

1. **Symbolic interactionism:** Objects facilitate an ongoing negotiation of spatial meaning.
2. **Semiotics:** Crystals act as nonverbal communicators embedded in the environment.
3. **Behavioral communication:** Ritual repetition fosters attentional routines and long-term habit scaffolding.
4. **Consumption studies:** Symbolic framing nudges more deliberate, emotionally attuned choices.

By positioning crystals as semiotic anchors that translate communication theory (meaning negotiation, framing) into symbolic behavior (ritual cues) and finally into sustainability outcomes (clutter reduction, mindful consumption), RSI operationalizes an often-abstract dialogue between theory and practice. In doing so, it bridges a long-standing gap: communication research tends to privilege message design, while sustainability research often focuses on material reduction. RSI demonstrates how communicative meaning-making processes can be harnessed to cultivate sustainable spatial habits without prescriptive deprivation.

Experimental genesis of RSI

The RSI framework emerged directly from insights gained through the A/B experiment. In the cherished item group, participants' sentimental objects naturally inspired localized care but rarely prompted broader spatial engagement. Conversely, many crystal group participants already owned crystals but lacked emotional connection or knowledge about how to cleanse or activate them, leaving the stones as static décor.

RSI bridges this gap. It fuses the emotional-attachment mechanism observed in cherished items with a suite of low-effort rituals—DIY crystal boxes, daily *omikuji* draws, and cleaning bingo cards. These micro-rituals gradually endowed the crystal with the qualities of a “silent pet,” cultivating affective bonds, prompting tidying routines, and encouraging pre-purchase reflection.

In short, RSI is not a theoretical abstraction but a synthesis of two distinct behavioral patterns. It confirms a triadic symbolic pathway of *emotion* → *ritual* → *behavior*, demonstrating how symbolic meaning can be operationalized into everyday action.

Practical implications

The RSI framework can inform practice in diverse fields:

1. **Design and architecture:** Embedding symbolic objects to reinforce spatial attentiveness and care.
2. **Behavioral science:** Using low-friction, emotionally resonant prompts to encourage sustained action.
3. **Sustainability:** Offering alternatives to prescriptive minimalism through meaning-driven engagement with possessions.

Future directions: extending RSI across domains

The potential of RSI extends beyond personal space management. As a symbolic behavioral design strategy, it can be adapted to diverse life domains:

1. **Self & productivity:** Digital rituals using NFTs or avatars can scaffold new productivity habits, while workplace tokens such as desk timers or objects serve as ambient cues for focused engagement.
2. **Social & environment:** Eco-rituals like reuse tags or seed coins can infuse sustainability into daily life through symbolic gestures. Community healing rituals—such as memorial crystals—can reinforce collective memory and emotional resilience.

3. **Everyday life:** Smart objects like “reset lamps” can act as environmental rituals to gently signal daily closure, integrating intention and behavior into routine transitions.

These extensions illustrate how symbolic behavioral design can move from analog crystals to digital systems, from individual introspection to collective rituals, and from spatial order to emotional balance—offering a flexible, meaningful toolkit for future intervention design.

Final reflection: toward symbolic behavioral design

Ultimately, this research lays a foundation for what may be termed symbolic behavioral design—the intentional use of emotionally and culturally meaningful objects to trigger and sustain behavioral routines through material-symbolic interaction. Crystals, in this context, act not just as decorative objects, but as embedded agents of change—silent communicators of attentiveness, care, and intention.

In a world saturated by overstimulation, clutter, and unsustainable habits, symbolic behavioral design suggests an alternative pathway: one that does not demand behavioral change through instruction, but gently invites it through meaning.

By demonstrating how small, ritualized interactions with symbolic objects can influence space organization and mindful consumption, this study provides both a conceptual framework and empirical grounding for future interventions that seek to integrate emotional resonance into everyday behavior. The crystal, once inert, becomes a silent pet—anchored in care, ritual, and choice.

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Appendices

Appendix A

Standard operating procedure for behavioral intervention

Table A.1 Intervention SOP Table

Stage	Researcher Tasks	Participant Tasks	Required Materials
1. Spatial Reflection (Pre-contemplation)	Introduce the project and explain symbolic behavior design; provide initial reflection prompts.	Reflect on current space and emotional needs through drawing or journaling.	Reflection worksheets, drawing paper, pens.
2. Visioning & Symbolic Anchoring (Contemplation)	Distribute crystals/personal items; introduce the concept of symbolic anchoring.	Receive crystal/personal item and identify its placement based on emotional goals.	Crystals, personal objects, guidance sheet.
3. Preparation (Planning)	Guide participants through DIY box creation (Group A) or story-sharing (Group B); distribute bingo cards.	Create crystal box and <i>omikuji</i> slips (Group A) or share personal item story (Group B); set cleaning goals.	Box-making materials, <i>omikuji</i> templates, bingo cards.
4. Action (Execution)	Monitor daily rituals: <i>omikuji</i> draws (Group A), spatial interaction (both groups); provide weekly feedback.	Engage in daily ritual interactions; complete cleaning bingo tasks as prompted.	<i>Omikuji</i> slips, crystal box, cleaning tools, incense (optional).
5. Maintenance (Sustainment)	Check-in for post-task reflections and habit evaluations; collect qualitative/quantitative data.	Evaluate experience; reflect on behavioral changes and emotional insights.	Survey forms, interview prompts, photo documentation tools.

Appendix B

Visual evidence – crystal group



DIY crystal box in progress

Figure B.1 This photo was taken during the implementation phase of Step 2-3 in the crystal group. It shows the hands-on crafting of a personalized crystal box by the participant, which was used to store *omikuj*i message slips and crystals. The process was designed to establish emotional attachment through symbolic interaction.



Figure B.2 *

(a) Crystal drawing and writing activity



Figure B.3 *

(b) Crystal-based reflection station

Figure B.4 Crystal workshop scenes from participant activity session



Figure B.5 *

(a) Crystal arrangement in transparent box with symbolic statue and aroma oil.



Figure B.6 *

(b) Crystals placed in pedestal dish on black desk.

Figure B.7 Participant-shared crystal spaces integrated into personal environments.

Appendix C

Social media responses

To complement the primary intervention study, participant interactions on social media—specifically Instagram—were observed as supplementary data points. These responses provide qualitative insights into how crystal rituals were integrated into daily life, and how symbolic behavior influenced broader lifestyle habits such as cleaning, mood management, and self-awareness.

Figure C.1 shows a comment from a participant who noted that engaging with the crystal routine led them to tidy their room—a behavioral spillover effect aligned with the goals of the intervention. Figure C.3 reflects emotional refreshment associated with crystal care, supporting the design’s symbolic-emotional loop.

These informal responses help triangulate the experiment’s findings, suggesting that crystal-based micro-rituals extended beyond the structured environment and fostered sustainable behavioral motivation through digital affirmation.



Figure C.1 Participant comment on Instagram: “After cleaning up the crystal these days, I sorted out the room.” This reflects behavioral spillover prompted by symbolic ritual.

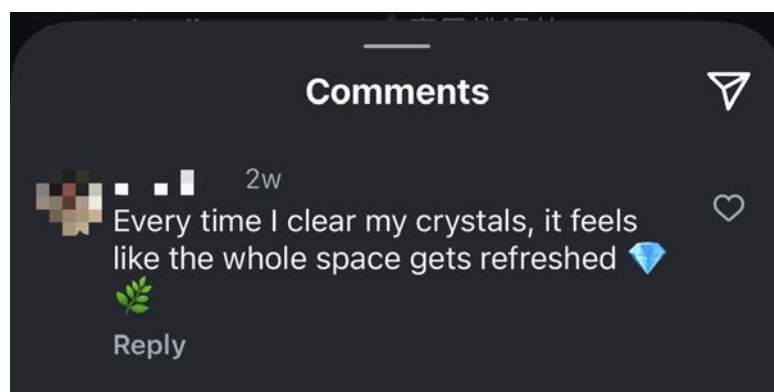


Figure C.2 Participant comment: “Every time I clear my crystals, it feels like the whole space gets refreshed.” This suggests emotional reattunement and spatial awareness.



Figure C.3 Screenshot of Instagram comments showing spontaneous emotional responses from viewers. Multiple users across different languages (Chinese, Japanese, and English) expressed feelings of relaxation, healing, and emotional comfort in response to the crystal-themed post. These reactions suggest a cross-cultural resonance with the calming aesthetic and therapeutic intent of the visual content. This engagement provides insight into how symbolic visual elements—such as crystals and ambient tones—can communicate soothing emotional cues and foster parasocial intimacy through digital platforms.

Appendix D

Omikuji template used in crystal group

The initial version of the *Omikuji* message slips (see Figure D.1) was designed to support early-stage ritual engagement by prompting participants in the crystal group to draw symbolic advice cards from their personalized crystal boxes. This version incorporated bright colors, symbolic fortunes (e.g., “Great Luck,” “Small Luck,” “Misfortune”), and accompanying behavioral tips. However, feedback from participants during the first round of testing indicated that the visual tone and instructional clarity could be improved.

In response, a second version of the *Omikuji* slips was created (see Figure D.2). This iteration featured softer color gradients, friendlier visual metaphors (e.g., cartoon animals, icons of balance and emotion), and revised tips written in a more empathetic, encouraging tone. The updated design aimed to reduce anxiety associated with receiving “unlucky” outcomes while maintaining the playful, randomized essence of the ritual. This refinement reflected participants’ suggestions to make the interaction more approachable and emotionally supportive, resulting in greater engagement and better alignment with the crystal ritual’s goal of promoting spatial reflection and mindful routines.



Figure D.1 The following PDF showcases the initial version of the *Omikuji* message slips used in the first round of participant testing. This version was designed to prompt daily ritual engagement by encouraging participants to "draw" a message at random from their personalized crystal box. However, several improvements were identified through feedback during the intervention activities, including suggestions to adjust the content tone, increase legibility, and better align message types with participant needs. These insights informed the creation of a second, refined version that was implemented in the final sessions.

Appendix E

Cleaning bingo cards

To accommodate different aesthetic preferences and enhance emotional resonance, participants were offered two styles of Cleaning Bingo Cards to choose from. Rather than assigning a fixed format, the goal was to empower participants with a sense of ownership over their tidying process by selecting the version that best matched their personal taste or emotional state. This flexibility not only improved engagement but also aligned with the symbolic design principle of making daily tasks feel emotionally supported.



Figure E.1 One of the two Cleaning Bingo Card styles offered to participants. This pink version features a cheerful and energetic tone, designed to appeal to those who prefer a cute and playful aesthetic.



Figure E.2 An alternative style of the Cleaning Bingo Card, using a soft purple color palette and minimalist graphics. This version was favored by participants who preferred calm, soothing visual environments while tidying.

Appendix F

Visioning an intentional space



Figure F.1 This poster was developed as part of Step 2 in the symbolic intervention framework to prompt spatial reflection. It includes soft visual cues and open-ended tips like “Thinking about how you wanna place your crystals” and “Thinking about the corner you want to purify.” This version aims to gently initiate participants into the envisioning process using minimal prompts and pastel aesthetics.