Valued Objects Dynamics and Adaptability of Domestic Workspaces

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Abstract

This paper discusses the dynamic value of objects that influence the spatial organization of a home-based workspaces. Spatial organization of workspace at home becomes significant with the emerging work-from-home arrangement during and post COVID-19 pandemic. The physical and psychological needs of working from home require adaptations on the domestic setting through the use and placement of objects in relation to how humans produce and experience space. This paper examines the value mechanism of remote workers with regards to their everyday objects and how such mechanism affects the overall workspace organization them. The study explores the workspace of 3 remote workers with different activities and preferences. The study shows that the dynamic value of objects shapes the workplace arrangements, enabling better accessibility, supporting the need for comfortable and pleasant qualities of space, as well as demonstrating self-identity. The study expands discussions on the spatial adaptation driven by dynamic system of objects.

INTRODUCTION

This paper explores the mechanisms of value dynamics in our use of objects, which becomes significant in influencing the adaptation of space. Objects become the starting point of discussion since they are considered to have a close relationship with how humans produce and experience space (Cwerner & Metcalfe, 2003; Hand et al., 2007; Marco et al., 2020; Castellani, 2021). Objects that exist in this world actually consist of the object itself and also the qualities in it, which are then seen by humans (Baudrillard, 1996; Harman, 2018) to be used or collected (Baudrillard, 1996) so that objects are considered valuable. Objects are not permanently valued but can decrease in value (less-valued) until they are no longer valuable (devalued), when there are changes in needs at certain times in life (Marco et al., 2020).

The existence of these objects in space can be related to the quality of life and well-being of its inhabitants. This study focuses on the existence of objects in the context of individuals who work from home, annotating its dynamics during the pandemic and its implications post pandemic. In this case, object is an important element in the process of producing a comfortable spatial for individuals, facilitating physical and psychological needs in the workspace (Caan, 2011; Hand et al., 2007; Marco et al., 2020; Tian & Belk, 2005). Mungkasa (2020) states that there are physical environmental conditions that do not support working from home for remote workers, such as the unavailability of adequate space, an unsupportive home atmosphere, to the lack of supporting objects. In addition, the activity of working from home that lasts for a long time in one place can affect the productivity and psychology of workers (Wilson, 2021). This encourages remote workers to make changes to their workspaces to meet these needs.

New needs of working happen with the stay-at-home regulation during the pandemic and it was necessary to rearrange the domestic environment to accommodate such change (Karimah & Paramita, 2020), which will arguably continue even after the pandemic. This paper focuses on examining the dynamics of valued objects that can change with the emergence of new needs and how it creates overall adaptation framework of workspaces. The study starts by theoretical investigation of such dynamics, studying the aspects that shape the dynamics of assigning values to objects and their relationship to spatial organization. The study then concludes on how the dynamics of valued objects relates to workspace adaptation during the pandemic and post pandemic.
Value of Objects and Architectural Space

The terminology of objects in this paper refers to the literature of Harman (2018) and Baudrillard (1996). Objects have an essence as the object itself, and also have qualities that are felt or experienced by humans (subjects) when humans have awareness and knowledge of these qualities (Harman, 2018). According to Harman (2018), humans as subjects play a role in revealing the quality of objects. This is in line with Baudrillard’s (1996) idea that humans have a role to control the functions (or what Harman calls quality) in objects. So, the meaning of the object in this paper is an object with a quality or function in it that is revealed and experienced by humans (subjects) in their daily lives, which is then related to how humans give value to objects based on their quality or function.

Humans interact with objects that are accumulated over time in order to support the needs of human physical and psychological activity, which then encourages the emergence of a sense of ownership of these objects. This sense of ownership is personal, because each individual assigns different values to objects in support of varying needs, and will also vary with time (Marco et al., 2020). Objects are fundamental to one’s personal identity (Pavka, 2023). Giving value to object is an early form of human interaction with their objects to architectural space, which is then related to how humans produce and experience space. The ideas of Marco et al. (2020) regarding how assigning values to objects to be seen along with its required temporality and visibility can affect how these objects are positioned in space, becoming the basis for understanding the interaction between objects, humans, and space in this paper.

Objects that are considered valuable according to Marco et al. (2020), are utilitarian objects which support physical activity, objects that provide enjoyment/pleasure and support the identity of the owner (both inner-identity and external identity). But the value of the object itself is dynamic. Objects that are initially considered valued can change to devalued and vice versa. The value given to this object is seen based on its temporality, which is categorized by Marco et al. (2020) as cycle and flow. Cycles tend to be driven more by frequency of daily activities, while flows are driven by significant changes in the way of life of the object owner, or driven by the shifts of technological advances and fashion trends. In positioning these valued objects in space, visibility becomes a concern. Whether the object will be displayed to be visible to the public, hidden in storage because it is more private, or placed in a holding space because its value is being questioned, whether it will be valued or devalued. It can be seen that this value change can affect humans in producing a space based on valued objects according to their needs and duration.

Adaptation Flow Between Object-Human-Space in Architectural Space Changes

The cycle and flow of human life, of course, undergoes changes in its journey, both from basic human needs in each phase of life and from the physical environment around it. These two things are interrelated, the physical environment can change due to changing human needs, and vice versa, so that both can encourage adaptation in response to changes.

According to the literature written by Hand et al. (2007), when there is a change in an object because it is influenced by the development of object technology and how humans accumulate these objects, this can affect adaptation to space. Then when the space undergoes changes, which according to Buchczyk (2016), due to the development of material technology and culture, this affects the adaptation to objects in the space, one of which is by eliminating previously accumulated objects. These changes then affect the need for new spaces, space configurations, and how humans perform routines in space.

The Needs of Space Adaptation with The Dynamics Value of Object

This study focuses on adaptation and rearrangement of the domestic space for working purposes based on dynamics value of object. During the pandemic, the domestic space and workspace conflates, requiring introduction of new objects as well as rearrangement of existing objects (Boccagni et al., 2022). However, such merge has been started in the human civilizations’ way before the pandemic, but accelerated by the digital revolution in current society (Holliss, 2015). Post pandemic future housing needs already demonstrate that offering home as workplace is important for the market (Doling & Arundel, 2022). There are various objectives on such conflating process, driven by object’s dynamic value, which will be discussed further in the following passages.

The strategy carried out by humans in organizing their valued objects provides convenience in human activities by considering the accessibility and visibility of objects to the duration and place of the activity. For example, dynamic valued of objects was introduced by Marco et al. (2020) in her exploration on storage strategies. The presence of storage also helps humans in categorizing valued objects with different roles, as mentioned by Cwerner & Metcalfe (2003) that storage presents order in human life. Objects that support activities related to specific spaces in the home and are used every day, such as pots and food ingredients for cooking, tend to be positioned by humans
in easily accessible storage in the kitchen (Marco et al., 2020). Meanwhile, objects that support activities that are not carried out every day, such as cake trays and barbecue tools, are placed in storage in the kitchen that has lower accessibility. In contrast to objects whose value is being considered by their owners, they are placed in temporary space before getting a decision from their owners whether these objects will regain value or become devalued objects and end up being rubbish. In the office, personalization of space is carried out by humans using the category of prosthetic possessions (Tian & Belk, 2005), or the quality of objects which performs as an extension of the user, facilitating the limitations of workers. For example, workers position their calculators in an easily visible and accessible place on the desk to overcome their limitations in calculating activities.

How humans organize their valued objects in space, apart from supporting physical activity, is also related to the fulfillment of their psychological needs. Both psychological needs are related to inner psychology and external identity. Talking about inner psychology, some informants of Olesen (2010) consider that objects in space have value because of their ability to change certain undesirable qualities of their domestic environment and can affect the atmosphere. According to Zumthor (2006), the atmosphere that is felt through the emotional sensibility of each human being is personal, sensitive, and individual. However, atmosphere can be experienced not only as a whole, but through fragments generated from the operation of objects (Hirzan & Yatmo, 2021).

The practice of how this personal atmosphere can be affected by valued objects positioned by humans in the room can be seen through Olesen's (2010) observations on elderly patients in aged care and Tian & Belk's (2005) observations on office workers. In the life flow of the elderly named Daisy who are going through the process of downsizing the domestic space from home to one room in aged care, she collects new objects and changed the rooms provided by aged care from an atmosphere that initially felt empty to comfortable like a "home" using her collection that describes her current life (Olesen, 2010). Meanwhile, Tian & Belk (2005) highlights material possessions that are used to psychologically improve the performance of workers through the existence of atmospheric texture and play at work in the form of white noise and aromatherapy. Workers may also use their playful possessions to turn a serious office atmosphere into a cheerful one by displaying a collection of toys on their office desks, enabling them to recharge and creating a more harmonious and effective personal workspace for each individual (Tian & Belk, 2005).

From the examples above, it can be seen that human efforts in organizing their valued objects in space can change the original atmosphere of the space into a more personal atmosphere according to the preferences of each individual so that with the presence of a comfortable atmosphere, the inner psychology needs of each individual can be fulfilled. Objects arrangement can be related to the sensorial experience of its users, influencing the overall atmosphere of the space (Hirzan & Yatmo, 2021). Fulfilling individual psychological state becomes important as it can also increase human concentration and productivity as mentioned by Clements-Croome (2006).

In addition to personalizing space for the needs of human inner psychology, the use of objects is important to inform the wider public of their identity (Boccagni et al., 2022). There are many ways that residents do to show their identity to the public in the domestication process. This is often done through personalizing walls with their valued objects that have qualities related to emotional/self-identity. Buchczyk (2016) discusses such self-identity in traditional houses in the village of Viștea, where the traditional cloth is used to display women's skills at home by placing them on mattresses, tables, and walls. With the arrangement of their valued objects, they can show the symbol of domesticity and the skills of Viștea women in the complexity of design, pattern making, to the richness of color from traditional fabrics to the public.

In a similar vein, workers in the office also personalize their work desks to show their identity using valued objects that they bring from home. In expressing their identity, workers display sentimental objects such as family photos, works belonging to their children, and other objects that are reminiscent of previous experiences (Tian & Belk, 2005). On the other hand, beyond showing their family identity or achievements, workers often personalize their desks intending to show the public that they are not just workers who always "go along" with their boring office environment (Harris, 1991). By using their valued objects, they personalize their desks to make them stand out from the rest. In the digital realm, such as in the case of YouTube's content creators, insertion of objects in space provide temporary transformation of domestic sphere into working space, developing the aesthetic identity they would like others to see (Boccagni et al., 2022).

Thus, this paper proposes an understanding that spatial adaptation by humans which is related to the dynamics of the value of objects is based on three goals related to human physical and psychological needs. The first is changes in the value of objects for domestic space personalization by assessing the prosthetic possessions (Tian & Belk, 2005) and by considering accessibility and visibility (Marco et al., 2020) to support physical activity. Second, changes in giving the value of objects are also carried out to support the inner psychology (Marco et al., 2020) of humans, namely to support the atmospheric and playful quality (Tian & Belk, 2005) by paying attention to each individual's personal preferences. Third, changes in the value of objects also occur in supporting the need for human identity, namely to support self-identity to the public, by paying attention to objects that are considered sentimental (Tian & Belk, 2005) and paying attention to visibility (Marco et al., 2020) of the object in space.
METHODOLOGY

This paper begins by exploring the understanding of objects as one of the important elements in the process of producing space from various literature, then continues by studying the relationship between objects and humans in architectural space in everyday life, to understand their dynamics values on objects that humans do based on their need to adapt in architectural spaces. To find out further whether this also occurs in the phenomenon of workspace adaptation due to work from home activities during the pandemic, case studies was conducted on three persons, one of them work at home and two others were students who conducted their learning online. These subjects also have different activities and preferences throughout the day. The case study was conducted through interviews and in-depth observations in the workspaces at their homes, to reveal the adaptation process carried out by each subject to their workspace related to changes in the value given to the object. The case study analysis will be discussed based on the mapping of adaptation of the workspace of each subject as an analysis of the subjects’ cycle and flow of activities, objects accessibility and visibility. The study then conclude on how the results from case studies may provide new outlook on adaptation of domestic space post-pandemic.

RESULTS AND DISCUSSION

There are different workspace changes for each case study according to the user’s respective activities and preferences throughout the pandemic. One worker made changes by altering the layout of the rooms to present a new workspace because previously they did not work at home, and there were changes in objects related to new hobbies and self-actualization to the public. One student made a change in position at work, and there were changes in objects related to old hobbies that were only re-done during the pandemic. One other student made changes in creating a workspace for a new activity. The different changes in each subject indicate the subjective adaptation being carried out, thus supporting the criteria discussed in this paper regarding the adaptation of remote workers by personalizing the workspace which is influenced by the activity needs and preferences of each while working from home.

Personalization of Objects Positioned Inside and Outside of the Space

In the workspace personalization process, there was a change in the value of objects before and after the work from home rules are imposed. This change of value influences the placement of valued objects in the space, altering and moving some objects away outside of the space;

![Fig. 1. Changes in valued objects before and after working from home in Subject 1’s workspace.](image-url)
Subject 1’s need for a decent work desk for work and placing new objects to support work activities at home, thus the existing table which was used for dynamic objects related to work activities before WFH decreased in value. The table was exchanged for a chest of drawers from another room that was considered more valuable, and chairs that were previously unused in another room had an increase in value and were moved to Subject 1’s room to build the workspace. Throughout the pandemic, the position of the workspace has been moved throughout the space, from an area exposed to excessive sunlight to a corner of the room on the opposite side. This causes a decrease in the value of the sofa in the corner of the room so that it is transferred to the holding room outside the bedroom. Similar with Subject 1, Subject 2 also moved the tools and materials that had been in another room to the cupboard under the study table, demonstrating a change in the value of the object. Addition of new objects to the workspaces have been done by all three subjects due to the various activities at the work desk and the long working hours at the desk prompted the subject to add new objects to his workspace, namely a wheeled chair and drinking bottle (Subject 1), a wheeled table (Subject 2), and a larger additional chair and table (Subject 3) with consideration to gain flexibility in carrying out activities in different places. However, Subject 1’s wheeled chair needed more space under the table so that the drawer on the table decreased in value because it had to be removed. This reduction in desk drawers causes the addition of new objects to replace them, namely storage boxes to store objects that were previously in the drawer.

In the production of space for work from home, initial rearrangement of objects was done to perform specific activities of working, increasing certain objects’ value based on the arrangement. Along time, qualities of working determine further rearrangement, such as the need to move objects to avoid sun exposure, and to add new objects to enable longer working time and flexibility of doing working activities and other domestic activities. This further rearrangement creates increase and decrease of objects value, changing the position of the objects inside and outside of the room. Continuous positioning and repositioning of objects exist from the interaction between objects, between objects and subjects, and between objects and the surrounding context that influence their decrease and increase of values in building the appropriate working from home environments.

**Personalization of Objects Based on Accessibility Dynamics and Inner Psychological Needs**

![Fig. 2. Organization of prosthetic objects during work from home in Subject 1’s workspace](image)
The ease of accessibility and frequency of use of objects is closely related to the performance of various activities in the workspace during work from home, shaping how the object is positioned so that it is easy to pick up, store, and move. The more often an object is used, the closer it will be to the subject's sitting or standing position. The main objects that were always used when doing work activities and doing hobbies for the three subjects consist of computer (Subject 1), laptops (Subject 2 and 3) and notebooks (Subject 2). These objects were positioned right in front of the subject's sitting position in the center of the table to approach the working body part. Objects that are often used can be positioned on the right side of the sitting position for easy grabbing using the right hand, on the left for easy movement, or positioned just below or above the table so that objects are still within reach of the subject's hands while sitting. Objects that are only used occasionally, are positioned slightly further from the position of the subject.

In addition to placing objects in a place that is easy to pick up and see, conversely, the subject also hides objects that they do not want to see in storage boxes, cabinets, or other objects that can contain or cover them, while still paying attention to the ease of access to be retrieved. Besides the placement of objects that tend to be static, the subject also uses objects that are more flexible to facilitate the need for object positions and moving subject positions, so that this flexible object can be easily moved according to needs. These more flexible objects include Subject 1’s wheeled chair, Subject 2’s wheeled table, and additional chairs and tables for Subject 3 to carry out lectures and practicum activities more flexibly.

Displaying or instead hiding the objects based on its accessibility dynamics demonstrate the visual and bodily connection of subjects in constructing their working environment. This visual and bodily connection enable the work environment to operate in a more micro and detailed level in comparison to our previous discussion on positioning...
bigger objects for work. In this sense, some bigger objects can only be operated with the existence of various smaller objects for the subjects, from laptop to notebooks. Some bigger objects are also used to hide the existence of other smaller objects. The arrangement of this displaying and hiding process are influenced by the object value dynamics, which are further shaped by the visual and bodily connection of the subjects in operating their work space.

**Fig. 4.** Organization of prosthetic objects during work from home in Subject 1’s workspace

**Personalization of Space in Showing Identity for Self and the Public**

To produce a comfortable and pleasant atmosphere for the subjects’ inner psychology during the work from home, the subjects organize objects that are valued for the expression of the identity of the self, and how they want to project it to the daily public. Some of the objects displayed for demonstrating self-identity were objects with significant sense of self-ownership/attachment, to sentimental objects that have been collected for a long time, as well as their own creations, such as Subject 1’s toy car, paintings by Subject 2, and a photograph of the closest friends of Subject 3 (Figure 5). In addition, the subjects also position these valued objects as a source of visual attraction, based on personal preferences for space and with considerations of the emerging trends, such as cactus and artificial plants, wallpaper, posters, and artificial light in Subject 1’s workspace, Subject 3’s beta fish aquarium, and Subject 3’s fake cactus and artificial plants (See Figure 6). These valued objects must be positioned in a place that can be easily seen at all times as the subject’s expression of identity to provide comfortable working atmosphere.
In the process of personalizing the workspace during the pandemic and after, one of the goals that the subjects want to achieve is to show their workspace to the public as a visualization of their identity through a digital screen as a virtual window. Such existence of identity can be entirely different with what they express to their self as elaborated in the previous paragraphs. Under this view, some objects are valued because they are considered to have the quality to be a source of pride, such as Subject 1’s alma mater jacket, Subject 2’s paintings, and Subject 3’s
practicum tools (See Figure 7). The position of valued objects and the position of the subject often change in order to adjust the visibility of valued objects and good light quality to achieve self-identity visualization and good graphic quality that will be projected on the digital screens. The visualization of identity to the public through space is carried out by subjects in different ways. Starting from formal methods such as using valued objects as background when making video calls as did Subject 1 and Subject 3, informal methods used by Subject 1 by taking photos of the entire workspace layout, to the process of uploading daily selfies with her valued objects and work from home activities by Subject 3 (See Figure 8).

The process of positioning of objects for identity has different arrangements between expression for self and the wider public. The objects positioned for expression of identity for the self becomes important and valued to construct the comfortable atmosphere of a working space psychologically for the subjects. On the other hand, the objects positioned for expression of identity to the wider public were driven by objects with source of pride, or objects that can strengthen their existence, be it as the worker or the students. The positioning of these objects varied based on their self or public arrangements. Objects valued to build identity of the self are positioned with visual connection and adjacency to the working subjects. While the objects valued for public identity are positioned with connection to the screens, surrounding the subjects or placed in the backgrounds. The duality of expressions that are needed by the subjects demonstrate other fragments of objects’ arrangement to construct a balanced working environment at home.

CONCLUSION

Fig. 9. The dynamics of valued objects.
Based on literature studies and findings in the case study analysis, it can be concluded that there is a dynamic way of perceiving assigning value to everyday objects, which is shaped by the changes in physical and psychological needs (inner & external identity) of the users in their living space (Figure 9). The case study shows that changes in object values and object organization shape the arrangements of working at home. The needs that arise in working from home are good accessibility to support multiple activities, the need for comfortable and pleasant quality space for working in an extended time, and the need for space that can visualize one's identity with good graphic quality when the users are being seen on a digital screen. With these needs, the case study shows that objects that are valued by remote workers are objects that have the quality as a form of prosthetic possessions, objects that have attachments to themselves, as well as objects that become sources of attraction and can be sources of pride. Valued objects are positioned by considering the ease of access to objects, visibility of objects in space, and good lighting quality.

The initial positioning of objects to assist the working activities demonstrate the interaction between objects, between objects and space, and the interaction between objects and the body. This interaction determines the overall spatiality and the value of objects throughout the working process. To create an operable working environment, visual and bodily connection influence objects that needed to be displayed, or instead hidden for the subject to work well. The subjects express different identity for the self and for the public. Positioning objects for expressing the self and attaining a comfortable working atmosphere require object that is valued based on self-attachment, sentimentality, or associations with trends. In addition, positioning objects for the public require object that is valued based on its existence as source of pride and strengthen their existence. The self-identified objects are positioned based on their visual connection to the self while working, or instead, while during the pandemic, objects needed to express public identity were positioned based on their connections to the digital screen. The connection between multiple objects interactions, visual and bodily connection, and the duality of objects based expression creates the dynamics of objects positions and continuously enable adaptation to the working environment at home.

With further disruption towards workplace post-pandemic due to the technological advancement and the rise of digital works, future research can examine how the workspace changes made by actors with different occupations and digital needs. Data collection can be done more rigorously by mapping them along the extent of their visibility-invisibility, frequency and ease of use (Figure 10). In the realm of architecture and interiors, this paper can serve as a guide to space adaptation that considers how humans value personal objects and how they tend to organize these valued objects in space so that a space can be created that understands the changing physical and psychological needs of users over time. Space does not become something static but as an entity which continues to evolve along with the dynamics of values towards the everyday objects within such setting.

Fig. 10. Organization of objects in supporting physical and psychological activities (inner and external) by considering the frequency of object use, accessibility, and visibility.
REFERENCES


