



## Perspective

### Managing Possessions in Late Life While Aging-In-Place: Is the Answer to Tolerate, Facilitate, or Liquidate?

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#### Abstract

Within aging-in-place inquiry, an issue which warrants consideration, and has begun to garner focus, is the negative impact that voluminous amounts of amassed material possessions can have on older people within their homes. For those who choose—and are able—to remain in their family home until end-of-life, their time in residence might span many decades, potentially as many as 70 years. In our affluent and consumer-driven society, this often translates into homes that are laden with belongings in later life. It becomes increasingly difficult to undertake the burdensome task of culling through possessions, and ridding clutter from closets, drawers, attics, basements and unused rooms. Decisions about and execution of gifting, selling, donating, and trashing those excess items is a burdensome task - physically and cognitively. This is true for homeowners of any age, but the process becomes increasingly difficult with increased age. Amassed belongings can be troublesome in the home on a variety of levels, the most problematic of which may be the anxiety—both for the older dweller and for their adult children—about how home contents will be dispersed, either pre- or posthumously. This article explores this issue, discusses implications, and suggests how we may view potential strategies to help alleviate the encumbrance of late-life possession management.

**Keywords:** Downsizing; Household disbandment; Late life deaccumulation; Possession divestment; Possession management; Ridding of possessions

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#### Introduction

Accumulating vast quantities of belongings over a lifetime is a relatively recent and unique phenomenon. In the later 20<sup>th</sup> century United States, increased per capita disposable income afforded people unprecedented purchasing power, exponentially greater than what existed before [1,2]. And with huge arrays of readily available mass-produced goods—now with remarkable ease of procurement and delivery—ours has increasingly become a culture of consumption where personal fulfillment is derived from possessing things. This forces an inevitable reckoning about how to confront one's household contents near the end of life's course and calls for a deeper dive into evaluating people's practical abilities to accomplish such a task [3]. While the sum of our belongings can provide comfort, utility, pleasure, and fulfillment, it can also become a burden and source of stress in later life.

Although overfull households can be seen as a by-product of financial affluence, other convergent societal trends reflect the issue: a proliferation of anti-clutter/self-help literature on ridding processes, rapid expansion of the self-storage rental industry, and rising popularity of consignment and thrift retailers selling second-hand goods. The issue is that—within the confines of elders' homes—excess possessions can cause both increased fall risk, and reduced indoor air quality due to dust accumulation, and generally reduce one's ability to actively adapt to environmental press. An imbalance can exist when the demands of one's environment exceed a person's physical and cognitive capabilities to operate comfortably within it, pressing the person to actively adapt, or requiring a change to environmental conditions to regain a balance [4].

More importantly, the need for continued curation of kept possessions, and the anticipation of both pre- and post-mortem ridding can create overwhelming stress for both the older person and their family members. De-accumulation concerns are common in many family circles, prompting familiar strains of “What is to be done with all this stuff?” While a societal awareness and cultural shift is evident on some levels, the need to confront late-life possession accumulations and the importance of personal divestment, leaves us with the question, Where must we go from here?

#### Looking Back - How Did We Get Here?

In early adult life, we aspire to own coveted items, both ordinary and personally prized. In mid-life, increased disposable income allows us to purchase much of what we desire. Decades hence, in our retirement years, many Americans possess more than can be easily managed. A 2010 survey of nearly 2000 older Americans indicated that 53 percent of people over age 80 had more things than they needed in their home, and only 4 percent in that age group—perhaps those at the lower end of the socioeconomic strata—reported having fewer things than were needed. Fifty-one percent of the same age group reported that their bulk of belongings would make them very reluctant to undertake the effort required to move to a different home [3,5]. Termed the “material convoy”, the amassed possessions accompany

our lives across time such that by mid-to-later life, the bulk of items we have collected, cherished, and retained can number in the many thousands [1]. Consumers are constantly on the receiving end of clever advertising which leads to ever more retail consumption. Even as Americans grappled with the once-in-a-lifetime, culturally debilitating, and economically crippling deadly Covid-19 pandemic, retailers Amazon and Target reported soaring online sales of merchandise. This suggests that there is no impending reversal of consumption and no cultural shift towards habitual divestment on the horizon [6,7].

Although there is a noted de-acceleration in the amassing of new items after approximately age 50 [8], most older individuals have already accrued a large body of possessions, the continued curation of which can become stressful and difficult for oneself and one's family. Approaching late life, people are progressively less able to rid their homes of excess items, due in large part to the sheer cognitive, physical, and emotional expenditures necessary to execute such ridding processes [9,10]. Unless some divestment or disposal occurs at some point during later life, people often reach their graves still owning a house full of objects, shifting the burden of disposal to their heirs. This is true for both the valued and meaningless items in homes. Much of what fills older Americans' homes is strictly "stuff," which—despite its insignificance and dispassionate form—is often no easier or less cumbersome to cast aside.

It should be noted that hoarding behavior is separate and distinct from the discussion herein. Hoarding—the acquisition of and failure to discard excessive numbers of possessions—is an extreme behavioral impairment that is categorized by both its limitlessness and severity, and is aligned with symptoms of obsessive-compulsive disorder, depression, and anxiety [11]. While late life possession accumulation can be both substantial and emotionally crippling, the difference is that—distinct from hoarding disorder—the possession acquisitions were both appropriate to the life course, and desired as reasonable accommodations. In late-life overaccumulation, the acquisitions have usually been quite practical, in a consumer society in which accumulation of mass-produced goods is a given [3]. The issue of late-life possession management arises from both sustained, yet reasonable, purchasing, and infrequent divestment or ridding sequences spanning decades of habitation, often within the same residence [2].

Though the arc of excess accumulation can be explained by theories of modern consumption, the retention of belongings until death is clearly a maladaptive by-product of living in a privileged society. Unlike the ancient Egyptians who imagined that if possessions were placed alongside the departed, they could travel along into the afterworld, surviving family members today often need to deal with the disposal of parents' life-long accumulation of belongings, a burdensome task no matter the circumstances. Ideally, the expansion and contraction of our "material convoy" would match our needs at various life stages: amassing as we start our families, and reducing when we have reached the empty nest and retirement phases, such that older people would "release quantities of the possessions that equipped the daily lives they no longer have" [9]. Two key factors are at odds with this imagined balance. First, our possessions are often kept for sentimental reasons, connecting us to our past lives, and securing continuity of our sense-of-self, especially when the richness of our experiences diminish near end-of-life. Additionally, with increased age and reduced abilities, it becomes ever more difficult to manage the cognitive, physical, and emotional task of possession divestment. What was difficult to manage in earlier decades, becomes overwhelming in later life.

The process of clearing out old clothing from one's closet, cleaning out that crammed junk drawer, or culling through old personal papers is universally viewed as a distasteful chore. A single-family home—even a modest one, and more so when occupied by the last survivor of the family unit—contains innumerable nooks and crannies in which things can be stored and forgotten. No longer occupied family bedrooms, as well as basements, attics, and garages become areas to place inactive inventory - the "backstage" areas on the home [3]. By the time—perhaps decades later—these items are next reckoned with, they may be outdated, decayed, or of no value to anyone.

After age 80, people report significant decreases in several related tactics: cleaning out or reducing numbers of household possessions, selling possessions via a variety of means, giving away belongings to family and friends, and donating to charitable organizations [3,5]. Ridding our homes of un-needed items is a laborious chore at any age, but more so in late life when both the desire and the ability to do so are reduced. One often chooses the act of keeping and ignoring over the task of culling and ridding, as the former is perceived as less onerous [3].

### The Issue as it Exists in the Here and Now

It is easy to see the point of imbalance between amassment of possessions versus the need for them. Particularly after the departure of adult children from the home, and entry into the "empty-nest" phase of life, many people have accumulated extensively more than they need to live comfortably or can manage [12]. A systematic process of purging is not an activity Americans undertake often enough to become skilled or knowledgeable about accomplishing [3]. One may only undertake the organization of a garage sale a few times throughout one's life. Moreover, charitable organizations to whom one can donate change affiliations and policies over time.

As decades pass, older people may spend eighty to ninety percent of their time at home amidst accumulated possessions [12]. Clutter—objects existing in an inappropriate location—can invade the living and storage areas of a home causing stress [1,13]. Some elders become preoccupied with concerns about how these treasured possessions will be divested once they are gone: either distributed to family members or sold to strangers, and whether new owners will have appropriate appreciation of their value as symbols of a meaningful life. Called "safe passage" by some theorists, the goal is to disperse the item to an appreciative heir, so that the history and meaning is not lost, and that the item remains a metaphorical extension of the original owner [2,9,10,14]. The adult children of those nearing life's end may also fret about how a parent's lifetime accumulations can be divested without forfeiting familial meaning, personal value and kinship good will.

If declines in health, cognition, and mobility prompt the older person or their loved ones to initiate a move to a smaller, more manageable residence—perhaps in congregate housing where care services can be provided—the process of household disbandment may be necessarily initiated. Reducing the volume of possessions to fit into a smaller footprint puts immediacy on the process of possession downsizing, thus relieving much of the burden and stress to be encountered at a later stage. Executing the gifting, sale, donation, and disposal processes is arduous and emotionally taxing for elders and their families at any stage, but here, a sooner is better than later approach applies, as the difficulty of the task accelerates with time. This process of household disbandment—the active reduction of possessions to allow for residential relocation or downsizing in later life—has received some notable focus in recent aging literature [9,10,14-18].

But people do prefer to age-in-place, remaining in familiar surroundings and avoiding a strenuous late-life residential relocation. Bayer & Harper [19] found that among people over age 75, 95 percent wished to remain in their current home as long as possible. Late-life aging-in-place often means that the extensive task of culling through accumulated possessions has likely not been undertaken. This process would involve sorting through accumulated items to determine which things should be distributed to family members to whom items which would have familial significance and emotional value, which items are unwanted by younger relatives but may have retained intrinsic value and therefore can yield cash upon sale, and which things should be disposed of because they have no value.

This action is avoided in late life for several reasons, including its perceived strenuousness. Adult children of those elders may avoid initiating such a chore, as they want their parents to continue to live amongst cherished accumulations and hesitate to indicate that they are rushing a parent towards the grave. And, for the older individual, end-of-life ridding brings one's own mortality into clear focus. If an older person has remained in the same home for decades, or until end-of-life—the home previously shared with family and spouse—the space likely exceeds what is needed. A pervasive age-related tendency to centralize actions within limited locations of the home has been documented [20,21]. Living in a smaller portion of the home and closing off unused rooms encourages more accumulation because “the convenience of storage tends to exceed the inconvenience of disposal” [22]. Items stored in back-stage areas remain out-of-mind for disposal, providing no impetus to discard, disseminate and dismantle [1,9]. Living in and accepting a less tidy home or closing off unused rooms requires far less emotional and physical effort than actively managing clutter and maintaining a more rigid cleanliness standard. And depression—the most common mental disorder of later life—diminishes both the capacity for effort and the potential pleasure to be derived from pride in a nicely maintained home [23].

One approach taken by many families is to avoid pressuring the elder to think about divestment, to avoid dealing with the issue of forthcoming death. However, in doing nothing, divesting is left to survivors. Possessions may not be bequeathed in the ways that the elder may have preferred, but survivors may find that not being obliged to have consensus in means of dispensing may expedite the process. Other adult children may find it paralyzing to discern preferences and act on them. In other families, there may be disagreements and hurt feelings, or even anger and bitterness in evaluating fair dispersal. In all cases, the posthumous burden of dispensing with a lifetime of possessions falls squarely on the survivors and may coincide with a difficult grieving process.

In other family situations, adult children may encourage aging parents to actively engage in determining favored recipients for specific items, thereby positively engaging the elder in establishing a legacy for items. This approach does not apply however in dealing with the disposal of items which only have value or meaning to the owner. Family recipients may eschew what is offered, not wanting to add to their own growing material convoy [3]. Forcing the issue may cause an older person to have to come to terms with the valuelessness and meaninglessness of their possessions. Many compounding issues may result in an inertia, leaving the material convoy within elders' homes in place, and intact for decades.

The innumerable items within homes are not provisionally inert, they require “being placed, stored, arranged, contained, tidied,

maintained, cleaned, secured, insured and provided for” [3]. Only in a monastic life does a person rid oneself of worldly possessions to live an unburdened life affording less stress and higher consciousness. While the material convoy equips and furnishes American lives in remarkably convenient respects, the convoy is also mere baggage - the curation of which weighs older people down in a myriad of ways [3].

Clutter has been identified as a leading risk factor for aging-in-place [24], so although one's belongings can be a source of pleasurable memories and connection to past events, they eventually become a burden [9]. “The material convoy becomes a potential drag on well-being” [18]. Homes with excessive accumulations and clutter have been found to increase risks for often debilitating trips and falls as well as elevated risks of household environmental contaminants like indoor dampness, mold, dust mites, pest infestations, cockroaches and rodents [25]. Once surfaces and crevices are covered with items, it becomes impossible to prevent the significant accumulation of dust. The properties of items change over time: textiles become moth-ridden and begin to rot, water or dampness infiltrate and cause decay, mold, or rust [26]. Extending over decades, the impact to air quality is highly detrimental, as many are anecdotally aware. The notion about the mustiness of “grandma's attic” is not a myth and can permeate throughout the home.

## Looking Forward

The question is how to address the predicament people have with their possessions—to encourage and assist with the pruning of the material convoy—in a way that is both supportive and transformational. There is no shortage of authorities on the topic, writing and espousing clutter control and organization advice [3]. Self-help literature from Marie Kondo and others suggest that the issues is one of personal self-mastery, where through greater self-regulation one can easily achieve fulfillment and become unburdened in a more enjoyable and pristine household existence [27]. As with dieting advice, the straightforward nature of such guidance masks the authentic impediments people realize in their efforts. And seasoned professional possession management service providers may not be known to, or affordable for, many older people to utilize.

Many dwellers regularly deal with both the issues of clutter and of managing excessive possessions, but often not at a pace which accommodates the co-occurrence of ongoing purchasing and acquisition [3]. And while regular ridding is a practice among disciplined home inhabitants, ridding of surplus should become more universally embraced in the practices of everyday life [26]. There are divergent practices for ridding and purging across the life course. For most people, ridding is usually episodic - aligning with a key life event, such as a residential move, the death of a family member, or a house remodel. If rather, ridding was to occur as part of a seamless flow of our lives—along with habitual ongoing purchasing, holding, and keeping—we might be able to better align belongings with our reduced needs, reduced roles, and reduced space [26].

Swedish death cleaning—or “dostadning” in Swedish—is a culturally embedded ridding practice. The concept gained notice following a recent best-selling book on the topic [28]. In that culture, as one proceeds through their retirement years, one systematically rids one's home of items - with an eye to one's impending end-of-life. Embedded in cultural practice, it is not perceived as morbid, but as a pragmatic ritual of freeing from a lifetime of accumulation to prepare oneself and one's heirs for inevitable death. Ekerdt et al., have

suggested that “Rather than heralding diminishment, we think that possession distribution is a forward-facing gesture that confronts the uncertainty of later life and asserts control over the accumulation of a lifetime” (p. 35) [22]. They suggest that this issue—as it is an eventuality that everyone must face—become a matter of social discourse such that it be addressed not individually within each family, but rather as collective thought within aging studies - to arrive at a shared conception of best practices.

The point is not to discourage consumption, nor propose that people should not retain things which are meaningful and personally gratifying, but the suggestion that we adopt a societal shift towards active late-life ridding is sound. Related discourse focuses attention on the inevitable reckoning and urges elders and family members to reduce their volume of possessions, consistent with the Swedish death cleaning approach. For adult children, the issue becomes two-fold: strategizing how best to assist older parents with managing possession accumulations, and attempting to avoid the inherited material convoy engulfing their home [3]. Three strategies exist for passing belongings to others: donating, gifting, and selling, along with a fourth strategy: disposing as waste. A 2010 study of Americans aged 50+ found that donating was the most common action, followed by gifting to family and friends, with selling being the least frequently utilized of the three passing strategies [3,5]. Donating to charities and agencies is fairly simple, as these businesses generally accept most goods, and will often pick up from a curbside. Gifting requires initiative on the part of the giver, and a willing recipient who deems the article desirable - a cooperative exchange that can be difficult to execute harmoniously. However, potential recipients are usually available within an elder’s sphere. Selling items requires some know-how, advanced planning and considerable effort [3]. Discarding transfers individual items into bags and truckloads - an efficient and expeditious method. But many people are reticent to relinquish items to the trash bin, either for fear that the item may be needed or come in handy in the future, or for a concern towards sustainability and reluctance to engage in harmful environmental practice.

So, the many questions to be pondered are - when and how should divestment occur in later years? How should we suggest or prompt to older dwellers that such a task be undertaken? If we hasten divestment, are we stripping away meaningful experiences and retention of the self in later life? Is it possible to encourage continual shedding of possessions throughout later years to get ready for future eventualities? And, to what extent should we enter our parents’ homes and help them rid - particularly of those things which have long ago lost value and meaning and significance? Is this harder on the elder during life than getting rid of the same things would be for survivors after death of the owner? If ridding and purging is procrastinated, is an undue burden passed to survivors? This final question becomes more complex in the consideration of those elders with no children (their own or adopted). This concern is accelerating, as US birth rates have been steadily declining since the baby boom era of the 1950’s and early 1960’s, currently at less than half of what it was during its high in the middle of the 20th century. The older adults of tomorrow will have significantly fewer adult children than the current older Americans of today [29].

The degree to which family members can become involved exists on a continuum, and no single choice is best for every situation. At one end, the relative is not involved, deferring complete agency to the elder. In the middle, the family member aids, but yields decision making to the older person. And, at the other extreme, the family member executes the ridding activities in the interest of the elder - a clearly paternalistic approach. Ekerdt [3] categorizes these roles as *absent*, *assist* and *assert*.

The navigation and choice of approaches is fraught with potential landmines in the good will relations of families, and there is no remedy to simplify these complex interactions and eliminate familial tensions. It seems logical that the need for possession management assistance will fuel new resource development, including new services or care specialties to address both the psychological and physical implications for home contents management. Within home modification practice, strategies could be developed to enable episodic possession divestment. Elevating the issue into cultural discourse will facilitate familial discussion about liquidating and distributing possession accumulations in ways that honor meaning and promote family harmony. A societal shift in thinking could transfer late-life de-possession efforts away from being a precursor to death, instead towards a lessening of a burdensome encumbrance in an older person’s final years [2].

## Conclusion

My research work [2] and personal experiences with elders in my social and kinship circle have confirmed that a tendency towards retention of household contents over decades often leaves elders overwhelmed and imperiled by the sheer numbers of items in their surroundings. Accumulations of possessions acquired over the life course provide comforting reminders of one’s life - of special occasions, loved ones, events and accomplishments. At the same time, clutter in the home can lead to tripping risks, can negatively impact air quality and can reduce one’s ability to effectively adapt to environmental press. With advancing age and an eye towards one’s own mortality, the manageability and future disposition of one’s bulk of belongings can take on a sense of impending doom “What is to become of all this stuff????” [3]. Personal possession accumulations in later life are at odds with reduced roles, and the need for a less laborious existence. In our current culture, we continually accumulate, but we do not engage in regular compensating divestment practices. How then should the goal of late-life possession management and the ridding of belongings be kept in view? At this point, more questions than answers exist. At both the individual and collective levels, there is a need for expanded scholarly interest, the development of assistive services and strategies, and an increased focus given to the proliferation and stagnation of contents within our homes.

## References

1. Arnold JE, Graesch AP, Ochs E, Ragazzini E (2012) Life at Home in the Twenty-First Century: 32 Families Open Their Doors. Cotsen Institute of Archaeology Press, Los Angeles, USA.
2. Stafford GE, Carter HC (2021) Late-life accumulation, proliferation, and stagnation of home contents: An in-depth qualitative study of ten aging in place dwellers. Journal of aging and environment 35: 161-187.
3. Ekerdt DJ (2020) Downsizing: Confronting our possessions in later life. Columbia University Press, New York, USA.
4. Lawton MP, Nahemow L (1973) Ecology and the aging process. In: Eisdorfer C, Lawton MP (eds.). The psychology of adult development and aging (pp. 619-674). American Psychological Association, Washington, DC., USA.
5. Health and retirement study (2010) A public resource for data on aging in America since 1990. HRS, Ann Arbor, USA.
6. Green T (2021) Target’s sales boomed during the pandemic; What happens next is anyone’s guess. The Motley Fool, Virginia, USA.
7. Hernandez MT (2020) Amazon e-commerce sales soar amid Covid-19. S&P Global, New York, USA.

8. Fernández-Villaverde J, Krueger D (2007) Consumption over the life cycle: Facts from Consumer Expenditure Survey data. *The Review of Economics and Statistics* 89: 552-565.
9. Ekerdt DJ, Baker LA (2014) The material convoy after age 50. *J Gerontol B Psychol Sci Soc Sci* 69: 442-450.
10. Ekerdt DJ, Addington A (2015) Possession divestment by sales in later life. *J Aging Stud* 34: 21-28.
11. Frost RO, Tolin DF, Steketee G, Fitch KE, Selbo-Bruns A (2009) Excessive acquisition in hoarding. *J Anxiety Disord* 23: 632-639.
12. Rowles GD, Oswald F, Hunter EG (2004) Interior living environments in old age. In: Wahl H-W, Scheidt R, Windley PG (eds.). *Aging in context: Socio-physical environments*. Springer, New York, USA.
13. Crum KP, Ferrari JR (2019) Psychological home, clutter, and place attachment predicting life satisfaction among women of color: Home is beyond physical space. *Journal of contemporary research in social sciences* 1: 87-96.
14. Ekerdt DJ, Luborsky M, Lysack C (2012) Safe passage of goods and self during residential relocation in later life. *Ageing Soc* 32: 833-850.
15. Ekerdt DJ, Sergeant JF (2006) Family things: Attending the household disbandment of older adults. *J Aging Stud* 20: 193-205.
16. Ekerdt DJ, Sergeant JF, Dingel M, Bowen ME (2004) Household disbandment in later life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 59: 265-273.
17. Price LL, Arnould EJ, Curasi CF (2000) Older consumers' disposition of special possessions. *Journal of consumer research* 27: 179-201.
18. Smith GV, Ekerdt DJ (2011) Confronting the material convoy in later life. *Sociological Inquiry* 81: 377-391.
19. Bayer A-H, Harper L (2000) A national survey on housing and home modification issues. American Association of Retired Persons, California, USA.
20. Oswald F, Wahl H-W (2005) Dimensions of the meaning of home in later life. In: Rowles GD, Chaudbury H (eds.). *Home and Identity in Late Life: International Perspectives*. Springer, USA. Pg no: 416.
21. Rowles GD (1981) The surveillance zone as meaningful space for the aged. *Gerontologist* 21: 304-311.
22. Ekerdt DJ, Addington A, Hayter B (2011) Distributing possessions: Personal property can become a social matter. *Generations* 35: 34-40.
23. Fogel BS (1993) *Psychological Aspects of Staying at Home* (1stedn). Routledge, London, UK.
24. Christner-Lile D (2011) *Aging in Place: Safely Living in Your "Home Sweet Home" Until You're 100+*. Tate Publishing & Enterprises, London, UK.
25. Turner PR, Bales D, Thomas K, Goldschmidt M, Fisher-McLean K (2017) Program note: Expanding healthy housing and environmental awareness in rural communities through local and national partnerships. *Housing and Society* 44: 190-207.
26. Gregson N (2007) *Living with things: Ridding, accommodation, dwelling*. Sean Kingston Publishing, London, UK.
27. Kondo M (2014) *The life-changing magic of tidying up: The Japanese art of decluttering and organizing*. Ten Speed Press, USA.
28. Magnusson M (2018) *The gentle art of Swedish death cleaning: How to free yourself and your family from a lifetime of clutter*. Scribner, New York, USA.
29. Stobbe M (2021) US birth rate falls to lowest point in more than a century. US News and World Report, Washington DC., USA.



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