

HOUSING IMAGES PORTRAYED IN 50 YEARS OF PICTURE STORYBOOKS

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Abstract

Images of housing portrayed in preschool picture storybooks influence the developing concept of home. Storybooks contribute to children's socialization and function as cultural artifacts. This content analysis study of 100 preschool storybooks about family life published in the United States over 50 years focused on three housing images found in text and illustrations: geographical location, dwelling type, and types of residential spaces where family activities were portrayed. Change over time was represented by publication dates grouped into five time periods.

Two-way chi-square analyses found no significant differences among time periods in frequency of portrayed housing characteristics. The dominant image of single-family detached housing in non-urban locations with typical room types was consistent across 50 years. Storybook housing images were compared to changes in housing patterns in the U.S. Census.

Introduction

Housing images in storybooks influence the developing concept of home (Hayward, 1975) in children and in adults who share books with children. This concept has lifelong implications for housing preferences, expectations, behaviors, and consumer-economic issues. Little attention has been paid to portrayed settings for daily family life, the housing that storybook families call "home". These housing images become part of the reader's concept of home.

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Through socialization, enculturation, and experiences, children learn appropriate and expected behavior, including types of spaces where such behaviors should occur (Fluck, 1988; Hall, 1981; Wohlwill & Heft, 1987). Along with influential persons in a child's life and observations of reality, communication media convey norms and expectations about consumer issues (Moschis, 1987) such as housing. Through both manifest and latent messages, such as in storybooks, children are socialized into normative behaviors (Burke, 1990; Sutherland & Arbuthnot, 1991; Wohlwill & Heft, 1987).

Housing norms reflecting socio-cultural values form standards against which existing conditions and future expectations are evaluated (Lawrence, 1987; McCray & Weber, 1991; Morris & Winter, 1978). The owned single-family detached house of conventional construction with yard is considered the normative American ideal. Lack of congruence between what is expected as appropriate environments for family life and what is actually experienced may lead to dissatisfaction and stress, affect self-esteem, result in negative social sanctions, or motivate adjustments to existing conditions (Morris & Winter, 1978), if housing options are recognized and available.

Change over time is considered a necessary part of studying housing and families (Hareven, 1991; Lawrence, 1991). As artifacts of society (Babbie, 1992), books carry normative socialization messages that may change over time. Change in portrayed housing images and norms may be revealed through quantitative content analysis of children's picture storybooks published over a period of historical time, the 50 years between 1943 and 1993 in this study.

Conceptual and Study Frameworks

The ecological systems model of nested social structures (Bronfenbrenner, 1977) and housing norms theory (Morris & Winter, 1978) formed the theoretical framework for this study. Each ecosystem level has reciprocal interaction with other levels; all are impacted by norms and cultural influences, both explicit and implicit, within each layer (McCray & Weber, 1991; Morris & Winter, 1978; Rapoport, 1969). Housing norms were assumed to be represented by housing images in picture storybooks. Three selected housing features represented different ecosystem levels.

The ecosystem nucleus was conceptualized as domestic activity settings (Dumesnil & Herrin, 1987; Lawrence, 1987, 1991) in and around storybook dwellings, the residential spaces where the activities of family life took place. Activities, characters, and physical cues such as furnishings or objects portrayed in text and illustrations were assumed to convey approved space usage, which varies among families, subcultures, cultures, and across time. Space usage and room names are guided by personal, family, and cultural norms (Hall, 1981; Hareven, 1991; Lawrence, 1987; Rapoport, 1969). Table 1 lists three indicators of how each space observed in a storybook might be used, with examples of specific characteristics found in text and illustrations. Observed indicator characteristics were listed and used by coders to select one room name coding category from the list provided.

The dwelling type occupied by the main character in each storybook was conceptualized as the transition or boundary between the nucleus household unit and other eco-

Table 1. Operational Framework for Dependent Variable: Type of Residential Space

Space Usage Indicators and Characteristics	Room Name Coding Categories
<p>1. <u>Activities</u> occurring in observed space might be:</p> <p>brushing teeth, sleeping, cooking, reading, storing toys, eating, playing with pet, studying, celebrating, bathing, talking, other (name), etc.</p>	<p>Combined indicators identified room name:</p> <p>(1) basement (2) bathroom (3) adult bedroom (4) child bedroom (5) breakfast room (6) den/family room (7) dining room (8) garage/shop (9) kitchen (10) living room (11) pantry (12) playroom (13) porch/deck (14) sew/laundry (15) circulation (16) storage (17) study/library (18) yard/garden (19) can't identify (20) other (name)</p>
<p>2. <u>Characters</u> portrayed in observed space might be:</p> <p>preschool son, teenage daughter, mother, father, resident or non-resident relative (identify), friend, visitor, employee, other (name), etc.</p>	
<p>3. <u>Furnishings/objects</u> found in observed space might be:</p> <p>stove, bed, toothbrush, toys, adult clothing, dishes, sofa, pencil, book, mop, yard rake, other (name), etc.</p>	

system levels. Residential exteriors reflect housing norms and economic or legal constraints, and serve as environmental screens or facades displayed to the world (Morris & Winter, 1978; Lawrence, 1987). Dwelling types can be described by various characteristics, such as single-family or attached or conventional construction. Table 2 lists three dwelling type indicators selected for this study with descriptive characteristics for each. Coders selected one observed characteristic from each indicator, then chose the coding category in Table 2 that combined the three selected indicator characteristics.

Table 2. Operational Framework for Dependent Variable: Dwelling Type

Dwelling Type Indicators and Characteristics	Dwelling Type Coding Categories
<p>1. <u>Construction type</u> (method, shape, style, or materials used are typical or unusual):</p> <p>(a) conventional (typical for portrayed site or characters)</p> <p>(b) non-conventional (unusual for portrayed site or characters)</p> <p>(c) type not discernible.</p> <p>2. <u>Structure type</u> (number of household units per structure):</p> <p>(a) single-family (1 household per structure)</p> <p>(b) low-density (2 to 4 units per structure)</p> <p>(c) high-density (5 or more units per structure)</p> <p>(d) type not discernible.</p> <p>3. <u>Structure form</u> (surfaces shared with adjacent structure):</p> <p>(a) detached (no shared walls, floors, ceilings)</p> <p>(b) attached (one or more shared walls, floors, ceilings)</p> <p>(c) form not discernible.</p>	<p>All possible combinations of characteristics:</p> <p>(1) conventional single family detached</p> <p>(2) conventional single family attached</p> <p>(3) conventional low-density detached</p> <p>(4) conventional low-density attached</p> <p>(5) conventional high-density attached</p> <p>(6) non-conventional single-family detached</p> <p>(7) non-conventional single-family attached</p> <p>(8) non-conventional low-density detached</p> <p>(9) non-conventional low-density attached</p> <p>(10) non-conventional high-density attached</p> <p>Note: High-density structures are by definition attached in form.</p>

Table 3. Operational Framework for Dependent Variable: Location of Dwelling

Geographical Context Indicators and Characteristics	Location Coding Categories
1. <u>Images of population density</u> such as crowds, single house on lot, many buildings in block, many cars, etc.	Combined characteristics described one location: Urban setting Suburban setting Rural setting Not discernible
2. <u>Proximity, size, and function of adjacent buildings</u> such as skyscrapers, barns, rowhouses, offices, shops, etc.	
3. <u>Nearby amenities, facilities, and transportation</u> such as subway, dirt lane, freeway, playground, neighborhood, school, museum, zoo, etc.	
4. <u>Vegetation or landscaping features</u> such as forest, trees in pots, open field, sidewalk, fountain, concrete flowerbed, garden, fenced yard, etc.	

Geographical location, the portrayed context of storybook dwellings, represented the outer ecosystem layers. Dwelling location influences housing options, accessibility of services, educational and work opportunities, and overall quality of life (Raffestin & Lawrence, 1990; Jackson & Southers, 1993). Preferences for location vary by cultural, subcultural, family, and individual norms (Lawrence, 1987; Morris & Winter, 1978). Observed context characteristics surrounding the portrayed dwelling and clues in the text were used to identify and select one of the location coding categories in Table 3.

Change in portrayed images across time, the independent variable, was represented by comparison of storybooks published at different periods of time. Books were grouped by publication dates into five arbitrary time periods: 1943-53; 1954-63; 1964-73; 1974-83; and 1984-93. The overall 50-year time frame included the childhood years of the baby-boom generation, who are parents today. The beginning date, 1943, was set at 50 years back from 1993, the most recent year for which booklist references were available at study inception.

The units of analysis/subjects for this study were picture storybooks. By definition, picture storybooks are written for preschool through second grade, ages 2 through 7, and include both written and visual images (Burke, 1990; Sutherland & Arbuthnot, 1991). Both words and pictures are utilized by young children in learning, so both were sources of data. Units of observation within each unit of analysis were images of the residence of the main character in each storybook.

Methodology

Sample Selection

The sampling frame database was developed from references listing storybooks by subject or age group. Primary title sources were: 3 editions of *A to Zoo: Subject Access to Children's Picture Books*; 10 editions of *Children's Catalog* (Easy Books section); and 4 editions of *Subject Guide, Children's Books in Print*. To increase the number of titles, especially from earlier years, 48 additional references from a variety of sources were consulted (Rodman, 1994). Sampling frame inclusion was determined by: amount of text plus illustrations defining picture storybooks; suitability for ages 2 to 7; publication in the United States within specified years; and inclusion in selected subject categories related to family life. Subject category headings pertaining to study variables, developed from guides to search terms and reference subject lists, were approved by a panel of experts.

The final sampling frame of 5,569 titles was grouped into five time periods by publication date. The proportion of books in each time period to the sampling frame total determined the number from each period in the final sample. A sampling pool larger than the final sample was randomly chosen from the sampling frame. These books were sought in 23 suburban and urban public libraries in a metropolitan county in the southwestern United States.

The final proportional sample included 6 books from time period 1943-53, 8 from 1954-63, 17 from 1964-73, 31 from 1974-83, and 38 from 1984-93. Screening for all criteria required examining 346 books to find the 100 book sample. Final selection criteria included: verification of initial criteria; portrayal of family life contemporary to time of publication; portrayal of two family diversity images (family type and ethnicity-part of larger study) and at least one housing diversity image (few books contained all three); and public library accessibility. At least one child and one parent had to be directly observable in text or illustrations.

Data Collection

Content analysis of communication requires coding of data into categories based on the conceptual framework (Babbie, 1992; Kassirjian, 1977). Three distinct attributes of housing diversity that could be objectively observed in the manifest content of storybooks were selected: location, dwelling type, and type of residential space. The conceptual framework and the data collection form were approved by five experts in related fields. Two were familiar with content analysis.

One location (Table 3) and one dwelling type (Table 2) per book, where the main character in the story lived, were coded. Coding categories for residential spaces were interior and exterior spaces, labeled by room names typical in American culture. Using portrayed space usage cues, coders selected one room name (Table 1) for each different residential setting portrayed in a sample storybook.

One coder and the researcher independently completed the entire sample, and a third did a random sub-sample of 33 books. Consensus was reached, or the third coder made the deciding category selection. Above 85% inter-coder percentage of agreement, found by dividing the number of agreements by the total of disagreements plus agreements, is recommended (Huck, Cormier & Bounds, 1974). Agreement was 96% on the sub-sample and 97% on the full sample.

Results

Description of Sample

Books in the final sample covered the target age range of 2 to 7 years. The two largest groups were appropriate for preschool to second grade (30 books) and for preschool to third grade (34 books). Most sample books were from the subject headings children (32) and family life (23). Of the 50 years in this study, only 9 were not represented, all before 1960. No attempt was made to include books from every year since the study focused on change over ten-year periods of time.

Research Question and Hypotheses

The research question asked if housing images in children's picture storybooks changed over time, measured by comparison of frequency of appearance of selected housing images among publication time periods. Due to repeated analyses, the conservative .01 level of significance was used (Porter & Hamm, 1986). Two-way chi-square analysis, appropriate for categorical data, requires minimum cell frequencies. If not adequate, as in the initial analyses in this study, cells may be logically combined (Siegal & Castellon, 1988). Table 4 summarizes results for both full and combined categories. The original five time periods were collapsed into three since distribution of data in the two earliest periods resulted in inadequate cell sizes. The combined 1943-73 period represented storybooks that were available to today's parents as children. No significant differences among time periods in frequency of portrayal of any housing diversity images were found.

The first housing hypothesis considered frequency of portrayal of geographical locations of storybook dwellings among time periods. For three collapsed time periods by four locations (Table 5), no significant difference was found. No other combinations seemed logical.

The next hypothesis looked at frequency of portrayal of types of storybook dwellings among time periods. The four dwelling type categories actually observed were analyzed. These categories paralleled classifications in housing norms theory (Morris & Winter, 1978) and the U.S. Census (U.S. Bureau, 1992). For four dwelling types by

Table 4. Summary of Analyses of Storybook Housing Variables among Time Periods

Dependent Variable	TIME PERIOD Categories (Independent Variable)								
	5 Time Periods**				3 Time Periods				
	χ^2 sig.*	df	p*	no	χ^2 sig.*	df	p*	no	
LOCATION OF DWELLINGS									
4 categories	20.04	12	.066	no	7.42	6	.284	no	
TYPE OF DWELLINGS									
9 categories**	19.29	16	.254	no	13.10	8	.107	no	
4 categories	16.80	12	.159	no	10.60	6	.100	no	
TYPE OF RESIDENTIAL SPACES									
9 categories**	15.37	32	.994	no	10.20	16	.855	no	
3 categories	3.50	8	.897	no	2.66	4	.617	no	

*at .01 level of significance

sig. = significant difference

Note: Some cell frequencies in these categories** were too small for results to be properly interpreted so cells were combined for subsequent analyses as shown.

Table 5. Dwelling Locations Portrayed at Different Storybook Publication Times

Dwelling Location	Time Period (Years of Publication)			
	1943-73	1974-83	1984-93	Totals
Urban	6	4	2	12
Suburban	8	11	12	31
Rural	13	7	13	33
Not discernible	4	9	11	24
Totals	31	31	38	100

chi-square = 7.42

df = 6

p = .284 > .01 level of significance

Table 6. Dwelling Types Portrayed at Different Storybook Publication Times

Dwelling Type	Time Period (Years of Publication)			Totals
	1943-73	1974-83	1984-93	
Single-family detached	22	17	23	61
Low-density attached	1	2	2	5
High-density attached	4	1	0	5
Not discernible	4	11	13	28
Totals	31	31	38	100

chi-square = 10.60 $df = 6$ $p = .10 > .01$ level of significance.

Note: Cell sizes were too small for results to be properly interpreted.

Table 7. Residential Space Types Portrayed at Different Storybook Publication Times

Residential Space Type	Time Period (Years of Publication)			Totals
	1943-73	1974-83	1984-93	
Private/sleeping spaces	30	33	44	107
Public/entertainment spaces	48	61	64	173
Outdoor spaces	22	18	32	72
Total spaces by time periods	100	112	140	352

chi-square = 2.66 $df = 4$ $p = .617 > .01$ level of significance

three time periods (Table 6), cell frequencies were too small for results to be properly interpreted. No further collapsing of categories was deemed logical.

The third housing hypothesis considered frequency of portrayal of types of residential spaces among time periods. To increase cell sizes, portrayed spaces were grouped into private/sleeping (personal care, adult spaces, child/teen spaces), public/entertainment (kitchen/eating, dining, living/den and circulation), and outdoor (porch/balcony, yard/garden) spaces. These general function groups have been used in residential space planning and research studies (Lawrence, 1987). For three residential space function categories by three time periods, no significant differences were found (Table 7). No further category combinations seemed logical.

Discussion

Geographical Locations of Storybook Dwellings

Most storybook dwellings were portrayed in non-urban locations (64%). Location was not identified in 24% of the sample books because context was not portrayed or could not be objectively selected, although often implied. Some stories occurred only in interior settings, or geographical settings may not have been pertinent to the story.

Rural storybook locations ($n = 33$) ranged from 22.6% in 1974-83 to 37.5% in 1954-63 and 100% in 1943-53. In the U. S. Census, rural housing declined steadily from 41% in 1950 to 25.5% in 1990 (U.S. Bureau, 1973, 1975, 1982, 1992). Sample books did not follow this pattern, with 34% rural locations in 1984-93. One book from 1943-53 showed the idealization of rural life when the family built their dream house in the country.

Suburban locations for storybook dwellings ($n = 31$) increased from 25% in 1954-63 to 32% in 1984-93. This echoes the suburban movement of the real population. Suburban housing in the Census increased from 27% in 1950 to 45% in 1990 (U.S. Bureau, 1973, 1975, 1982, 1992).

Urban storybook locations ($n = 12$) dropped from 25% in 1954-63 to 5% in 1984-93. In Census data, urban households declined only slightly from 35% in 1950 to 30% in 1990 (U.S. Bureau, 1973, 1975, 1982, 1992). Nearly one third of households are urban compared to 5% of recent fictional families in this study.

Storybook Dwelling Types

The dominant image in this sample across 50 years and in any time period was the single-family detached house (62%). Low-density and high-density attached dwellings were each portrayed in 5% of the sample. Some dwellings (28%) were not categorized because the exterior was not observable or an objective judgment was not possible, although type was often implied. The only non-conventional dwelling, a converted school bus, was combined with other single-family detached units for analyses.

In the Census, single-family detached housing declined from 76.4% in 1960 to 66.9% in 1990, with related increase in higher density housing (U.S. Bureau, 1973, 1975, 1982, 1992). There was no such decline in the sample. In the 1990 Census, 15% of households resided in low-density attached housing while 18% lived in high-density (U.S. Bureau, 1992). In 1984-93, 5% of storybook families resided in low-density units and none in high-density. Storybook housing did not reflect the higher density housing in which increasingly more real children are living, nor did sample books portray the variety of dwelling types occupied by real families.

The housing norms of single-family detached house with yard were well represented in this sample of storybooks. Portrayal of 99% of storybook dwellings as conventional underscores the norm for conventional construction (Morris & Winter, 1978). Non-conventional dwelling types are found in non-fiction books, but did not receive reinforcement by portrayal in the sample storybooks.

Residential Spaces in Storybooks

Similar residential spaces were portrayed as settings for day-to-day family life across the fifty years of this study. A total of 352 residential spaces were identified in the sample: 23 in 1943-53, 32 in 1954-63, 45 in 1964-73, 112 in 1974-83, and 140 in 1984-93; 14 unnamed spaces were omitted. Portrayed activities determined where multi-purpose spaces were counted. Although usage of residential space is said to change over time (Hareven, 1991; Lawrence, 1987, 1991; Morris & Winter, 1978), no such change was observed in this study. No comparable Census data was found.

Child and teen spaces (bedroom, playroom) were the most frequently portrayed ($n = 60$), as expected in children's books. The frequent appearance of living spaces (living room, den; $n = 58$) and kitchen/informal eating spaces (kitchen, breakfast room; $n = 57$) underscored the central role of these space types in family life. The next most portrayed spaces were adjacent yards and gardens ($n = 48$), scenes of both work and play. The frequency of formal dining spaces ($n = 35$) was of interest given the decline in formal family dining over the years. Personal care spaces (bathroom, laundry; $n = 29$) and attached outdoor spaces ($n = 24$), such as balconies and porches, were often settings for family communication. One memorable scene showed an apartment-dwelling young boy dreaming on the fire escape of his building. Circulation spaces (hall, stairs, entry, vestibule; $n = 23$) were often scenes of family interaction. Adult spaces (bedroom, study; $n = 18$) were the least frequently portrayed.

Recommendations

Education about housing diversity and exposure to housing alternatives should be encouraged across the life span, so that potential options for meeting family and individual needs will seem more viable. Media housing images are potentially dynamic formats for housing diversity education. Development of media portraying housing diversity would be useful projects in housing and related classes, as would exploration and discussion of the content and influence of media housing images.

Housing images in other media should be analyzed: fiction for other ages; non-fiction, such as textbooks and early readers; and other formats, such as television, magazines, advertisements, and movies. Future studies could include other housing characteristics and selection criteria; larger samples, perhaps with equal number of books in every year in the selected time frame; comparison of shorter periods of time; books from other library or private collections, particularly in other parts of this country; and comparison with media housing images from other countries.

This study was limited to image and usage aspects of the concept of home. Inclusion of the meaning of home (Hayward, 1975; Lawrence, 1991) is necessary for fuller understanding of the concept. Study of the concept of home across the life span should include the function of various socializing agents.

Those who work with children and families need to understand the manifest and latent messages in storybooks. The dominant storybook image of the non-urban, single-family detached house should be considered when planning activities, selecting books,

and creating media. The apparent dearth of alternate housing options or alternative storybook settings is a challenge to locate or create such resources.

Conclusions

Picture storybooks in this study portrayed a dominant normative image of housing that has not changed significantly in over 50 years: the single-family detached house in a non-urban location with similar types of spaces portrayed as family life settings. The lack of significant differences among time periods in portrayed housing images underscores the strength and continuity of these norms during the times in this study. However, other housing images were portrayed; this potential trend toward portrayal of housing diversity should continue to be tracked.

Many family and housing professionals feel that today's housing, especially the suburban single-family detached house, does not meet family needs. The portrayal of comparatively few housing options and only one non-conventional dwelling in these storybooks does not adequately represent the full spectrum of American housing. Storybooks should better reflect the real housing situations of American children, and should include more urban settings and more apartments.

Acceptance of current housing options and future alternatives will be influenced by media messages about housing. Portrayed housing images influence expectations, preferences, and behaviors, and deserve careful consideration as part of the socialization process. Children's picture storybooks play an influential role in the developing concept of home. These portrayed images influence both children and adults, the housing consumers of today and of tomorrow.

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