
Occupational Portrayals on Television: Children's Role Schemata, Career Aspirations, and Perceptions of Reality

Author(s): John C. Wright, Aletha C. Huston, Rosemarie Truglio, Marguerite Fitch, Elizabeth Smith and Suwatchara Piemyat

Source: *Child Development*, Vol. 66, No. 6 (Dec., 1995), pp. 1706-1718

Published by: Wiley on behalf of the Society for Research in Child Development

Stable URL: <http://www.jstor.org/stable/1131905>

Accessed: 14-09-2017 21:48 UTC

REFERENCES

Linked references are available on JSTOR for this article:

http://www.jstor.org/stable/1131905?seq=1&cid=pdf-reference#references_tab_contents

You may need to log in to JSTOR to access the linked references.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://about.jstor.org/terms>



JSTOR

Society for Research in Child Development, Wiley are collaborating with JSTOR to digitize, preserve and extend access to *Child Development*

Occupational Portrayals on Television: Children's Role Schemata, Career Aspirations, and Perceptions of Reality

John C. Wright and Aletha C. Huston

University of Kansas

Rosemarie Truglio

Teachers College, Columbia University

Marguerite Fitch

Central College

Elizabeth Smith

University of Kansas

Suwatchara Piemyat

Thammasart University, Bangkok

WRIGHT, JOHN C.; HUSTON, ALETHA C.; TRUGLIO, ROSEMARIE; FITCH, MARGUERITE; SMITH, ELIZABETH; and PIEMYAT, SUWATCHARA. *Occupational Portrayals on Television: Children's Role Schemata, Career Aspirations, and Perceptions of Reality*. CHILD DEVELOPMENT, 1995, 66, 1706–1718. Do children's schemata for occupations they observe in real life differ from those they see on TV? 177 second- and fifth-graders were assigned to conditions in a 2 (real-life or on TV) \times 2 (police officer or nurse) design. They answered open-ended questions about what police officers or nurses do (in real life or on TV) and rated the typicality of various job activities. Their schematic knowledge about TV and real occupations was clearly differentiated. TV versions entailed more glamour, higher income, more stereotypes, and more dramatic events without negative consequences. Real-life occupations entailed more effort, status, and excitement. Older children differentiated slightly more clearly than younger ones. Children who perceived television as factual and realistic had real-world schemata similar to TV images. Children who were heavy viewers and perceived television as realistic were most likely to aspire to jobs shown on TV. Conclusion: children form separate schemata for social information acquired from TV and from real-world experience, but those who perceive television as socially realistic are apt to incorporate TV messages in their schemata and their aspirations.

Television is an "early window" on the world for children, showing them a range of people, places, and relationships. Many theorists and social critics have proposed that children learn social information from the programming that they watch several hours a day. For example, according to cultivation theory, people acquire conceptions about the social world as a result of frequent exposure to the consistent and repetitive images of television (Gerbner, Gross, Morgan, & Signorielli, 1986; Signorielli & Morgan, 1990).

We conceptualize social learning from television in the framework of schema theory. A schema is "a cognitive structure that represents organized knowledge about a given concept or type of stimulus" (Fiske & Taylor, 1991, p. 98). Much of the basic research on social schemata has been devoted to investigating how existing schemata affect perception, memory, inference, and preference. In the television domain, for instance, children attend to and recall television portrayals that are consistent with traditional gender roles more readily than nontradi-

This research was supported by grant number MH-44311 from the National Institute of Mental Health. We are grateful to Michelle St. Peters, Tiffany Merkel, and Helen Svoboda for their help in collecting and analyzing the data. Requests for reprints: John C. Wright, Department of Human Development, 4001 Dole Center, University of Kansas, Lawrence, KS 66045.

[*Child Development*, 1995, 66, 1706–1718. © 1995 by the Society for Research in Child Development, Inc. All rights reserved. 0009-3920/95/6606-0002\$01.00]

tional portrayals (Calvert & Huston, 1987; List, Collins, & Westby, 1983). Much less attention has been given to the process of schema formation and change (Fiske & Taylor, 1991). Television is a likely source for the initial construction of schemata for social roles and social scripts.

Perceived Reality of Television

In our model, schemata are absorbed from television in a conceptual context defined by the child's judged reality of television in general and different program genres in particular. Judgments about reality can be described on two principal dimensions: (1) *factuality*—is the content "true" in the sense that it represents events in the world outside television, or is it fictional, make-believe? (2) *social realism*—is the content realistic, plausible, or useful as a guide to the real world?

One hypothesis derived from the model is that children's perceptions of factuality and social realism are controlled by different variables and characterized by different developmental histories. *Factuality* is mostly a result of cognitive developmental change. Children learn to determine factuality by discriminating formal production features that characterize different television genres (e.g., news programs have adult male talking heads, fictional programs have dramatic music). Knowledge of television conventions is dependent upon age and ability but, above a certain minimum experience, not a cumulative function of viewing.

Previous research supports this model. Correct judgments about factuality and knowledge of formal features denoting fact and fiction are predicted by age and general verbal ability, but *not* by the amount or type of TV typically viewed (Condry & Freund, 1989; Dorr, 1983; Hawkins, 1977; Hawkins & Pingree, 1982; Wright, Huston, Reitz, & Piemyat, 1994).

Perceived social realism, by contrast, seems to result from immersion in the world of entertainment television rather than from developmental change. Judged realism does not decline with age, but it is correlated with the amount of television viewed (Dorr, Kovacic, & Doubleday, 1990; Fitch, Huston, & Wright, 1993; Greenberg & Reeves, 1976; Potter, 1988; Wright et al., 1994).

There is a developmental shift in the importance of factuality relative to social realism. By age 10 or 11, most children comprehend what is fact or fiction on television

in about the same way adults do. Their concerns shift to judgments about social realism or plausibility: that is, are the people, places, and character actions believable or similar to real-world experiences and events, even if they are fictional? (Dorr, 1983; Hawkins, 1977; Potter, 1988).

Children's judgments about television reality are expected to influence how they process televised information—that is, how that information is incorporated in schemas. Those judgments may serve as superordinate schemata used to process what is viewed or as tags associated with particular schemata. In either case, a child watching a cartoon or a situation comedy would form schemata that are specific to the class, "fictional television" and would, therefore, have different schemata and expectations for television than for real life. Earlier research demonstrates that children do make up different types of stories when asked to think of a script for television than when asked to imagine real-life events (Potts & Masters, 1984, 1986; Watkins, 1988). Moreover, when factuality is experimentally manipulated, children have sometimes reacted to "real" stimuli with higher levels of aggression (Feshbach, 1976) and greater changes in sex-role perceptions (Pingree, 1975) than when they saw "fiction." Similarly, "factual" segments sometimes, but not always, elicit higher levels of facial or self-reported affect than matched "fictional" segments (Huston et al., 1995).

Occupational Role Schemata

Occupational role schemata were chosen for investigation in the current study because they are important in development and they are often portrayed on television. Moreover, vocational aspirations can be assessed as a plan for action rather than just schematic knowledge. The two occupations investigated were nurse and police officer. They were chosen because they represent both male- and female-stereotyped jobs; they are often shown on television (Signorielli, 1993); and most children observe them in real life. Therefore, children have opportunities to form separate real-life and television schemata.

Content analyses over many years have repeatedly indicated that television portrayals of many occupations show the glamorous, dramatic aspects of jobs, while the hard work, boredom, and routine elements are deemphasized. Nurses on television are almost all female, and they have little power

1708 Child Development

(DeFleur, 1964; Signorielli, 1993). Medical professionals are shown in hospital settings (as opposed to outpatient settings); they treat pathology more than they engage in prevention; acute illnesses prevail over chronic illnesses; and they use drugs and biomedical treatments more than psychological-behavioral treatments (Turow & Coe, 1985).

Police officers on entertainment television are portrayed as hardened, tough characters; they are nearly all men over age 30 who are honest and follow the rules; 70% of them commit violence (DeFleur, 1964; Dominick, 1973; Lichter & Lichter, 1983). Violent crimes such as murder and assault are most common on television, whereas most real-life crimes are nonviolent and related to property; 88% of television crimes are solved compared with only 23% of real-life crimes; on television, crimes end with police tracking down and arresting criminals (Dominick, 1973).

Despite the prevalence of occupational portrayals on television, relatively little is known about what children learn from them. Some earlier studies have shown that children acquire information on television about frequently portrayed occupations (DeFleur & DeFleur, 1967; Signorielli, 1993). A recent experiment demonstrated that children learned schemata about unfamiliar occupations from brief television vignettes (Huston, Wright, Fitch, Wroblewski, & Piemyat, 1994).

Relations of Perceived Reality to Schemata

In the model guiding this study, individual differences in perceived factuality and realism are expected to affect the formation of schemata. Children who believe that television fiction is factual and those who perceive it as realistic are likely to form schemata about real-world occupations that are based on television portrayals. Perceived factuality is likely to be more important for acquisition by younger children, and social realism is expected to be a more important mediator of viewing effects for older children.

Real world knowledge about the occupations being judged was expected to lead children to be less susceptible to accepting fictional television portrayals. Although this hypothesis is intuitively reasonable, it has received little empirical support in earlier research (cf. Elliott & Slater, 1980; Potter, 1988).

Predictions about the effects of perceived reality on schemata about television

jobs are less clear than those for real-life occupational schemata. It is possible that children who consider television unreal or unrealistic will differentiate television images from real life most clearly and will, therefore, report exaggerated versions of television's typical images when asked about occupations shown on television. Or children who perceive television as factual or realistic might develop schemata with the most pronounced "television-like" content because of their willingness to accept television images as real.

Aspirations

Earlier investigations suggest that television viewing influences aspirations, possibly as a result of its impact on occupational schemata. An investigation of adolescents demonstrated that heavy viewers held values about work that were like those portrayed on television (Signorielli, 1993). Another study was based on content analyses showing that television programs in the 1980s portrayed large numbers of women in some occupations previously dominated by men (Williams, 1986). Girls expressed positive attitudes and aspirations for these previously masculine occupations (e.g., lawyers); there was no corresponding interest in other male-dominated occupations not shown on television (e.g., dentists) (Wroblewski & Huston, 1987). Children who watched *Freestyle*, a television series designed to reduce gender stereotypes about occupations, showed the intended changes in belief and attitude (Johnston & Ettema, 1982).

Present Study

One purpose of the present study was to determine whether children's schemata for television occupations differ from those for real-life occupations. A second purpose was to investigate the relation of two dimensions of perceived reality of television to occupational schemata. Perceived factuality was expected to vary primarily with age. Two age groups, second and fifth grades, were studied because children's understanding of factuality shows a large jump between ages 7 and 10. Perceived social realism was expected to vary primarily with amount of television viewed. Both dimensions were expected to predict children's occupational schemata about real-life occupations, but no prediction was made about their relation to schemata about occupations as portrayed on television. To the extent that perceived factuality (but not social realism) influences schema formation, then differentiation between television and real-world schemata

was expected to increase with age. Children's occupational aspirations were expected to be affected by their acceptance of the glamorous images on television. This prediction was tested at two levels: "television-like" schemata about particular occupations were expected to predict aspirations for those occupations, and perceived realism and frequency of viewing were expected to predict aspirations to hold jobs often shown on television.

Method

PILOT STUDY

The methods for the study were developed in a pilot study in which 48 children ages 6–8 ($N = 24$) and 10–12 ($N = 24$) were interviewed. Six children in each age group were randomly assigned to each cell of a 2 (police officer vs. nurse) \times 2 (real-life vs. "on TV") design. In each cell three children saw TV footage (real-life or TV-program) and three did not. All were asked for open-ended responses and responses to closed-ended questions about what activities people typically perform in the job.

The use of the video clips to activate a child's schemata did not appear to be necessary, and there was some danger of its confounding responses. Children understood the task and could discriminate between real-life schemata and TV schemata.

In closed-ended responses about the occupations, children said that real-life nurses and police officers worked harder, were smarter, required more education, and were more highly respected than their TV counterparts. Contrary to prediction, they rated real-life occupations as more exciting than the same occupations on TV.

MAIN STUDY

Subjects

Participants were 97 second graders (mean age = 7.68, $SD = .51$) and 80 fifth graders (mean age = 10.53, $SD = .60$) in two elementary schools in a small midwestern city. Students in both schools were primarily white and from middle-income parts of the city. The average scores on a statewide reading test were the fifty-third percentile and the seventy-second percentile in the two schools.

Design

Children in each grade were randomly assigned to be interviewed individually about real-life or television schemata for one

of two occupations (police officer or nurse). In the real-life condition, the interviewer said, "I'd like to talk to you about what people do in their jobs. We're interested in finding out what kids know and think about different jobs. I'm going to ask you about one particular job—being a nurse/police officer." In the television condition, the interviewer said, "I'd like to talk to you about what people do in the jobs you see on TV shows. We're interested in finding out what kids know and think about how different jobs are shown on TV. I'm going to ask you about one particular job shown on TV—being a nurse/police officer."

Free response schemata.—Children were told, "Now tell me as much as you can about [what nurses/police do] (real life condition) or [what nurses/police on TV do] (TV condition). Probe questions included asking what they do when they go to work, how they spend their time at work, what are the most exciting things they do, and what are the most boring things they do.

Coding free responses.—The coding system was developed in the pilot study. Responses of pilot subjects were transcribed without identifying information, then divided into units containing one schema element each (defined as one discrete action, usually by an agent). All unique elements in all transcripts were coded as specific activities derived from content analyses and from the protocols themselves (e.g., "help deliver babies," "catch criminals"). These were grouped by content similarity. The coding scheme was revised several times; reliability was checked on small samples (5–10) for each revision.

The procedures and final coding scheme developed in the pilot study were used in the main study. Individual responses were transcribed and coded without identifying information. They were then collapsed into content groups. Before any data analyses, predictions for condition differences for each content group were generated.

For police, 86 unique elements were collapsed to eight content groups. Five of these were expected to occur more often in schemata about TV police: (1) investigates crime (e.g., stakeouts, raids, undercover, write down clues); (2) drugs, weapons, serious crime (murder, shooting, kidnapping); (3) chase, radio, felonies (robbery, assault, fight with criminals); (4) succeed against criminal (always catch criminal, put in jail);

1710 Child Development

(5) leisure activities (eat, joke with co-workers, read newspaper). The last three were expected to be more frequent in real-life schemata: (6) professional activity (wear uniform, do educational programs, office work, patrol); (7) help and protect (help kids, work hard, sacrifice time from family); (8) traffic duty (direct traffic, give tickets, handle car accidents).

For nurse, 72 unique activities were combined into seven groupings. The first four were expected to be more frequent in schemata about TV jobs: (1) acute emergency (surgery, emergency, hospital setting); (2) leisure activities (party, drink coffee, personal life); (3) gender (nurse described as female); (4) dramatic illness (major or rare diseases cured, death). The other three were expected to appear in schemata for real-life jobs: (5) routine care (out-patient, feed, help patients); (6) professional activity (knows job, works hard); (7) treats minor problems (sprains, gives shots and drugs).

Coding for each occupation was done independently by two individuals. Coder agreement for the combined categories used in the analysis was police = 86%, nurse = 79%, computed as agreements / (agreements + disagreements).

For each subject, coders completed two five-point rating scales designed to assess the similarity of the child's free response protocol to typical television content (1 = like TV to 5 = like real life): (1) specific references to television or television themes (e.g., mentions TV production techniques, genre of TV program), and (2) a molar rating of the child's protocol for its similarity to television stories. Agreement (within one point) was 89% for police, 78% for nurses.

Typicality ratings.—Because children's free responses may be limited by their verbal ability, closed-ended "typicality" ratings are sometimes used to measure schemata and scripts (Adams & Worden, 1986). Schema elements are presented, and children are asked how typical they are. In this study, items describing components of occupational schemata were presented, and children were asked how much each component characterized television police, real police, television nurses, or real nurses.

The 17 items were selected to represent the content areas on which television and real-life schemata were expected to differ after testing in the pilot study. They repre-

sented six content areas: (1) stereotypes (e.g., "How many nurses are good looking?"), (2) assets (e.g., "How many police officers have enough money to buy almost anything they want?"), (3) effort and status (e.g., "How hard is the work that nurses do?"), (4) excitement and interest (e.g., "How exciting is the work that police officers do?"), (5) emotion (e.g., "How often are nurses afraid?"), and (6) job specifics (e.g., "How often do police officers use their guns?" "How often do nurses help save someone's life?"). The emotion grouping was included because nurses and police on television are often involved in highly dramatic events that generate strong emotions. All items were constructed with four-point Likert-type scales.

Perceived Reality

Perceived reality of television.—An 18-item questionnaire designed to measure children's perceptions of the factuality and realism of television in general was administered in the classroom approximately 2 weeks before the individual interviews. It had three scales: (1) perceived factuality of news (e.g., "When the TV news shows an accident, do you see the scene of the real accident?"), (2) perceived factuality of TV shows (e.g., "If two people are mad at each other on TV, are they mad at each other in real life?"), and (3) perceived social realism of television (e.g., "Do people on TV have different kinds of problems than people in real life?").

All items had four-point Likert-type response scales. For the two factuality scales, the response alternatives were: 1 = no, very sure; 2 = no, sort of sure; 3 = yes, sort of sure; 4 = yes, very sure. For the social realism items, the response alternatives were: 1 = almost none of the time; 2 = some of the time; 3 = most of the time; 4 = almost all of the time. The Cronbach alphas for second and fifth graders, respectively, were: *factuality of news*, .52 and .61, *factuality of TV shows*, .61 and .46, *social realism*, .42 and .73. Low alphas on factuality reflect ceiling effects, especially for fifth graders; as expected, social realism was not a very coherent domain for second graders.

Perceived reality of occupational portrayals.—During the individual interview, children were asked two questions about factuality and two about social realism of television portrayals of nurses/police. The questions about *factuality* were: (1) Are the nurses/police on TV shows (e.g., Doogie

Houser/Miami Vice) really nurses/police when they are off camera in real life? (2) Do the events in TV shows actually happen to nurses/police officers in real life? The questions about *social realism* were: (3) Are the nurses/police officers you have seen in TV shows like nurses/police officers in real life? (4) Are the things that happen to nurses/police officers on TV shows a lot different from things that happen to nurses/police officers in real life?

The response scale for each item was 1 = no, very sure; 2 = no, sort of sure; 3 = yes, sort of sure; 4 = yes, very sure. The two questions intended to measure factuality were not correlated. In retrospect, it appeared that Item 2 was ambiguous; therefore, Item 1 was used as the index of *perceived factuality of occupational portrayals*. Items 3 and 4 were summed as the index of *perceived realism of occupational portrayals*.

The two indices of perceived reality of occupational portrayals were positively related to the parallel scales for TV in general. Perceived factuality of occupational role portrayals was positively related to perceived factuality of TV shows for both ages, second grade, $r(94\text{ df}) = 0.51, p < .001$, fifth grade, $r(77\text{ df}) = 0.34, p < .001$. Perceived social realism of occupations was also positively related to perceived social realism of TV shows, second grade, $r(94\text{ df}) = .19, p < .05$, fifth grade, $r(77\text{ df}) = 0.46, p < .001$.

Television Viewing Frequency

A *television viewing checklist*, administered in the classroom, contained 50 currently popular programs selected on the basis of Nielsen ratings to provide a range of program categories (e.g., comedy, cartoons) in proportions approximating the proportions found on commercial television. Children were asked to mark whether or not they usually watched the program and whether they liked it. Programs were classified as having an informative purpose (i.e., they were designed to convey education, information) or no informative purpose (primarily for entertainment) using a system of categorizing television programs with high reliability (average rater agreement 93%–97%; CRITC, 1983). Entertainment programs constitute those evaluated in content analyses, so they were expected to be most closely related to formation of the schemata measured. Two viewing scores represented the number of programs checked in each category: *informative viewing* and *entertainment viewing*.

Knowledge Sources

Four items concerning *real-world sources of knowledge* about police/nurses were administered in the individual interview: (1) How many police officers/nurses do you know in real life? (2) How often have you seen police/nurses doing their jobs? (3) How much have other people told you about police/nurses? and (4) How much have you read about police/nurses? Each item had a four-point Likert-type response scale. The median correlation among the items, calculated separately for occupations, was $r(85\text{ df}) = .25, p < .01$.

Occupational Aspirations

Aspiration to be police or nurse.—Children were asked whether they would like to be a police officer/nurse (depending on their experimental condition). The response scale was 1 = not at all, 2 = probably not, 3 = probably yes, 4 = definitely.

Television job aspirations.—The fifth graders were asked to indicate on four-point Likert-type scales how interested they were in eight occupations. Four are often observed by children in real life (teacher, dentist, secretary, insurance salesperson), and four are often shown on TV (lawyer, model, TV reporter, private detective) (cf. Wroblewski & Huston, 1987). Job aspiration scores for the TV occupations were calculated.

Results

Free Responses

For each content group, analyses of variance were performed with condition (2) \times grade (2) \times gender (2) as independent variables. The means for each occupation with predicted directions and *F* ratios are shown in Table 1. For police officer, the results were in the predicted direction on six out of eight categories; there were nonsignificant differences for the other two. For nurse, the results were in the predicted direction on two categories, with nonsignificant differences on the other five.

For both occupations, there were significant condition differences on the indices of "television-like content." Contrary to prediction, there were only two interactions that included grade level. There were few age differences.

Typicality Ratings

The means for each of the 17 items composing six content areas are listed in Table 2. For each group except job specifics, the scores of the component items were the de-

TABLE 1
MEAN NUMBER OF SCHEMA ELEMENTS IN CHILDREN'S FREE RESPONSES FOR
REAL LIFE AND TV OCCUPATIONS

	PREDICTED	OBSERVED		df	F RATIO
		TV	Real		
Police officer:					
1. Investigate crime	TV > RL	.89	.44	1, 79	4.96*
2. Drugs, weapons, serious crime	TV > RL	1.11	.63	1, 79	3.82*
3. Chase, radio, felony	TV > RL	1.09	1.16		N.S.
4. Succeed against criminal	TV > RL	.75	.81		N.S.
5. Leisure time activities	TV > RL	1.36	.72	1, 79	11.22***
6. Professional routines ^a	RL > TV	1.32	1.47		N.S.
7. Help and protect	RL > TV	.48	.86	1, 79	4.77*
8. Traffic duties	RL > TV	.16	.86	1, 79	33.27***
Nurse:					
1. Acute emergency ^b	TV > RL	1.82	1.81		N.S.
2. Leisure activities	TV > RL	.71	.57		N.S.
3. Gender	TV > RL	.07	.22		N.S.
4. Dramatic illness	TV > RL	.11	.02		N.S.
5. Routine care	RL > TV	1.80	2.14		N.S.
6. Professional routines ^c	RL > TV	.16	.41	1, 81	5.32*
7. Treat minor problems	RL > TV	.40	1.07	1, 81	15.98**
Both:					
References to TV production: nurse	TV > RL	.24	.02	1, 82	10.15**
References to TV production: police	TV > RL	.75	.21	1, 79	11.94***
Television-like story: nurse	TV > RL	3.18	4.07	1, 82	14.63***
Television-like story: police	TV > RL	2.70	3.95	1, 79	28.20***

^a Condition × grade × gender: $F(1, 79) = 4.94$.
^b Condition × grade: $F(1, 79) = 6.82$.**
^c Condition × gender: $F(1, 79) = 5.50$.
 * $p < .05$.
 ** $p < .01$.
 *** $p < .001$.

pendent variables in a multivariate analysis of variance in which condition (2), grade (2), and occupation (2) were between-subjects independent variables. For job specifics, the two occupations were analyzed separately.

Condition differences.—There were significant condition differences for stereotypes, assets, effort and status, excitement and interest, and job specifics (police only). For the most part the direction of differences was consistent with prediction.

Children believed TV occupations were more stereotyped than real life, particularly with regard to gender. They rated TV police and nurses as more affluent than their real-life counterparts. Children rated TV police higher than real police on the specific job activities shown on television, particularly catching criminals. They thought TV nurses were less likely than real nurses to get sick.

Children believed that real-life police and nurses had to expend more effort and received more respect than the TV versions

of these occupations. They thought real-life people were more likely to need several years of education and worked harder. Contrary to prediction, but consistent with the pilot study, children rated real-life occupations more exciting than TV occupations. There were no overall differences in ratings of “boring,” or the perceived likelihood of experiencing the emotions of anger, fear, or sadness.

Age differences.—Age (indexed by grade) contributed to main effects or interactions for three of the clusters (see Table 2). There were significant main effects of age for stereotypes and for job specifics (nurses) and an interaction of grade × condition for excitement/interest. Fifth graders thought nurses and police were more likely to be stereotyped (sex-typed and young) than second graders did. The difference was especially large for ratings of TV occupations. Fifth graders also rated nurses as less likely to be sick, especially on TV, than second graders did. On the emotion items, fifth graders dif-

TABLE 2
 PREDICTED DIRECTION AND MEANS FOR TYPICALITY RATINGS IN STUDY 2

ITEM	PREDICTION	GRADE						df	F RATIO
		Second		Fifth		Both			
		TV	Real	TV	Real	TV	Real		
Stereotypes ^a .....	...	...	...	...	...	...	...	3, 167	4.83**
Sex-typed	TV > RL	2.81	2.45	3.24	2.74	3.01	2.58	1, 169	14.52***
Young	TV > RL	2.67	2.78	3.07	2.82	2.85	2.80	1, 169	.32
Good-looking	TV > RL	2.58	2.71	2.61	2.46	2.60	2.60	1, 169	0
Assets .....	...	...	...	...	...	...	...	3, 167	3.32*
Lot of money	TV > RL	2.73	2.45	2.68	2.28	2.71	2.38	1, 169	6.61*
Nice car	TV > RL	2.92	2.82	2.90	2.62	2.91	2.73	1, 169	4.07*
Expensive house	TV > RL	2.94	2.78	2.85	2.77	2.90	2.77	1, 169	1.67
Effort and status .....	...	...	...	...	...	...	...	3, 167	4.19**
Hard work	RL > TV	3.35	3.65	3.05	3.31	3.21	3.50	1, 169	4.66*
People respect	TV > RL	3.15	3.29	3.02	3.28	3.09	3.28	1, 169	2.31
Educated	RL > TV	3.69	3.86	3.32	3.74	3.52	3.81	1, 169	9.42**
Excitement and interest ^b .....	...	...	...	...	...	...	...	2, 160	4.64**
Exciting	TV > RL	2.77	2.82	2.56	3.13	2.66	2.95	1, 161	6.45**
Boring	RL > TV	2.58	2.55	2.27	2.74	2.44	2.64	1, 161	2.55
Emotions ^a .....	...	...	...	...	...	...	...	3, 159	.97
Mad	TV > RL	2.58	2.69	2.68	2.64	2.63	2.67	1, 161	.38
Sad	TV > RL	2.50	2.31	2.29	2.67	2.40	2.47	1, 161	.82
Afraid	RL > TV	2.25	2.37	2.63	2.92	2.43	2.61	1, 161	2.53
Job Specifics—Police .....	...	...	...	...	...	...	...	3, 82	2.96*
Get hurt	TV > RL	2.83	2.80	3.00	2.74	2.91	2.77	1, 84	.93
Use guns	TV > RL	3.04	2.88	2.80	2.53	2.93	2.93	1, 84	1.21
Catch criminals	TV > RL	3.75	3.36	3.80	3.58	3.77	3.45	1, 84	6.52*
Job Specifics—Nurse ^a .....	...	...	...	...	...	...	...	3, 83	1.89
Not sick ^c	TV > RL	2.42	2.21	3.00	2.50	2.69	2.34	1, 85	5.51*
Save lives	TV > RL	3.75	3.75	3.57	3.65	3.67	3.70	1, 85	.10
Works in surgery	TV > RL	3.08	3.29	3.00	3.00	3.04	3.16	1, 85	.36

NOTE.—The *F* ratios in boldface are multivariate *F*s for the cluster; those under them are univariate *F*s for each item. Main effect of condition: * *p* < .05. ** *p* < .01. *** *p* < .001.
^a The multivariate main effect of grade was significant. For job specifics, *F*(3, 83) = 3.40, *p* < .05, for stereotypes, *F*(3, 167) = 4.60, *p* < .01, for emotions, *F*(3, 159) = 3.88, *p* < .01.
^b The multivariate condition × grade interaction was significant, *F*(2, 160) = 4.47, *p* < .05.
^c The univariate main effect of condition was significant, though the multivariate effect was not.

ferentiated between real-life and TV jobs more than second graders did.

Perceived Reality and Occupational Schemata

Predictors of perceived reality scores.—The two indices of perceived reality were expected to be predicted by different variables: age was expected to predict perceived factuality, and viewing experience was expected to predict perceived social realism. These predictions were confirmed. Older children had lower perceived factuality scores when asked about police/nurses (grade level with factuality, *r* = -.48, *p* < .001) and about television shows (*r* = -.46, *p* < .001). Older children had slightly higher

perceived social realism scores for television shows (*r* = .18, *p* < .05).

Viewing frequency (entertainment programs) was tested by regressing it on each perceived reality score after controlling for grade. It was a significant predictor (beta = .26, *p* < .01) of perceived social realism of television shows, but not of social realism of police/nurse or of any factuality score.

Schema variables.—The typicality items in three clusters—stereotypes, assets, and job specifics—were combined into one score representing television-like content. These items were selected as most clearly television-like on the basis of both a priori

1714 Child Development

hypotheses and mean differences in children’s ratings of television and real-life jobs.

This score was the dependent variable in regressions performed to test the hypotheses about the effects of perceived reality on television-like schemata. Because those hypotheses were different for children asked about real-life jobs and those asked about jobs portrayed on television, the two groups were analyzed separately. Occupation and grade level were entered first as controls. Then, the measures of perceived reality, entertainment viewing frequency, and real-life sources of information were entered in a forward regression. The same regressions were performed for each grade level separately. There were few significant findings for second graders alone, so only the fifth grade results are reported. The results of the analyses are shown in Table 3.

Both perceived factuality and perceived social realism were expected to predict television-like schemata for real occupations. The findings partially support that prediction. Children who believed that television shows are factual and that portrayals of police and nurses are socially realistic had “television-like” schemata about real-world jobs. This pattern was especially pronounced for fifth graders.

Children with real-world sources of information were expected to have less television-like schemata than those with few sources other than television. That hypothesis was contradicted by the findings.

For children in the television condition, who were asked about what was typical of occupations on television, no directional prediction was made about perceived reality effects. The results are mixed. When asked about the occupation that was the topic of the interview, children who perceived television portrayals as socially unrealistic had the most television-like schemata about that occupation. By contrast, there was some tendency for those who believed that television in general was socially realistic to have high television-like schemata. The patterns for perceived factuality are similarly contradictory, though less pronounced.

Predictors of Occupational Aspirations

Schemata as predictors.—Children’s schemata about police and nurses were tested as predictors of aspirations to be a police officer or nurse in the two conditions separately. Scores for five clusters of schemata (stereotypes, assets, effort and status, excitement, and job specifics) were entered as predictors after occupation, grade, and gender. Children’s schemata about televi-

TABLE 3

REGRESSIONS PREDICTING TELEVISION TYPICAL SCHEMATA FROM PERCEIVED REALITY, VIEWING FREQUENCY, REAL WORLD INFORMATION, AND MOTIVES FOR VIEWING

	CONDITION (Asked About)			
	Television		Real Life	
	Both	Fifth	Both	Fifth
Grade level .....	.18	N.A.	-.05	N.A.
Occupation ^a	-.18	-.45**	-.30**	-.45**
Factuality occupation	-.06	-.22	.07	.03
Factuality of news .....	.20 [#]	.23	.12	.14
Factuality of shows .....	.22	.17	.12	.40**
Social realism occupation	-.24*	-.44*	.17 [#]	.50**
Social realism shows .....	.11	.32	0	.05
Viewing frequency, for entertainment TV .....	.12	.08	-.05	.04
Real world information .....	.06	.10	.44**	.39**
R ² .....	.19*	.43 [#]	.34***	.67***
Adjusted R ² .....	.10*	.23 [#]	.27***	.55***
Change in R ^{2b} .....	.07	.06	.27	.26

^a For occupation, 1 = nurse, 2 = police officer.

^b Change in R² calculated as final adjusted R² subtracted from adjusted R² accounted for by grade and occupation alone.

* *p* < .10.
 * *p* < .05.
 ** *p* < .01.
 *** *p* < .001.

sion occupations predicted their aspirations. Four clusters were significant predictors in the television condition (betas: stereotypes = $-.24$, $p < .05$; assets = $.21$, $p < .05$; status = $.24$, $p < .05$; exciting = $.42$, $p < .01$). Together they accounted for 27% of the variance, adjusted $R^2 = .27$, $F(8, 79) = 5.02$, $p < .001$. Aspirations were higher when children thought television occupations were not stereotyped, had high assets, had high effort and status, and were exciting.

Children's schemata about real-life occupations were weaker predictors of aspirations than their schemata about television occupations. The adjusted $R^2 = .05$ and was nonsignificant.

Perceived reality, viewing frequency, information.—Aspirations to be a police officer or nurse were regressed on perceptions of television reality, frequency of viewing entertainment television, and real-world information with gender, grade, and occupation were entered first as controls. The two experimental conditions were analyzed separately.

In the television condition, the adjusted $R^2 = .18$, $F(9, 77) = 3.11$, $p < .01$. Aspirations to be a police officer or nurse were highest for children who perceived television shows as factual (beta = $.21$, $p < .05$) but not socially realistic (beta = $-.20$, $p < .10$), and who were heavy viewers of entertainment television (beta = $.37$, $p < .01$). In the real-life condition, the adjusted $R^2 = .17$, $F(9, 77) = 3.02$, $p < .01$. Aspirations were highest for children who reported real-world sources of information about the occupation (beta = $.41$, $p < .001$).

The second aspiration measure, collected only for fifth graders, consisted of the mean for four jobs frequently shown on television. That score was submitted to a hierarchical regression entering gender first, then perceived factuality of news, factuality of TV shows, social realism of TV shows, and frequency of viewing entertainment television. The adjusted $R^2 = .09$, $F(2, 69) = 4.57$, $p < .05$. Children who aspired to television jobs were heavy viewers of entertainment television (beta = $.26$, $p < .05$). Perceived social realism of television was also significantly correlated with these aspirations ($r = .24$, $p < .05$), but it did not account for a significant amount of variance independently of frequency of viewing.

Discussion

One major purpose of this investigation was to determine whether children develop

different occupational role schemata for television and real life. On both open-ended and closed-ended measures, children did produce different schema elements for television and real-life occupations. In most instances, the differences were in the direction predicted on the basis of content analyses and commentaries about how television portrayals differ from the actual activities of the occupations studied.

The occupations, nurse and police officer, were selected because most children have opportunities to observe them in real life and they are often shown on television. One would expect separate schemata only when both sources of information are available. In fact, children showed less clear distinctions between television and real-life job roles for nurses than they did for police officers. The most likely reason is that nurses are shown less often than police on television and, when they do appear, they are less often shown working (Signorielli, 1993). It appears that multiple opportunities for learning may be required for children to form separate occupational schemata for television fiction and the real world.

Two dimensions of perceived reality—factuality and social realism—were expected to have different antecedents and correlates. The results support the hypothesis that perceived factuality is an age-correlated developmental phenomenon that is relatively unaffected by the frequency with which children watch television. Perceived social realism not only does not decline with age but, in this study, was slightly higher for older than for younger children. It is highly related instead to children's involvement in television, particularly entertainment programming.

Both types of perceived reality were expected to lead children to accept television portrayals as accurate versions of real-life occupations, and the results were consistent with that expectation. Although both types of perceived reality predicted children's television-like schemata about real occupations, perceived reality appears to be more important than perceived factuality. If factuality were highly influential, one would expect large age differences in mean levels for schemata; in fact, there were fewer age differences than predicted. Moreover, perceived social realism consistently predicted a little better than perceived factuality. Finally, the relations were stronger for fifth than for second graders; by fifth grade, social realism is likely to be a more salient dimension of reality than perceived factuality.

1716 Child Development

These findings add an important qualification to earlier work suggesting that frequency of viewing leads to acceptance of television images as real (e.g., Signorielli, 1993). In this analysis, perceived social realism was the mediator. Frequent viewing was not directly related to television-like schemata but was related to perceived social realism which, in turn, predicted schemata.

The hypotheses about how perceived reality would relate to children's schemata about occupations as shown on television were less clear, and the results are mixed. One might expect that children who perceive television as unreal would give exaggerated descriptions of television schemata; this prediction was supported by the finding that children who perceived portrayals of police or nurses as unrealistic had the most "television-like" schemata about those portrayals. In a sense, they were saying that they were aware of how far from the truth television fiction goes. At the same time, those who said television in general was realistic on a measure administered 2 weeks earlier had high television-like schemata. That is, they were most likely to say that TV police and nurses were stereotyped, had assets, and so on. It is possible that a more general view of television as realistic inclines children to incorporate its images, but, when asked directly about realism immediately after describing the occupational role, they deny the realism of those images.

Children's occupational aspirations were expected to be influenced by their acceptance of television images, in part because television emphasizes the glamorous, dramatic aspects of jobs. This prediction was tested at two levels. First, children's schemata, particularly for television jobs, predicted their aspirations to be nurses or police officers. On the whole, the children who aspired to an occupation were those who believed that it was well rewarded, involved effort and status, and was exciting. Hence, aspirations were related to belief in positive qualities. Children who associated these positive elements with fictional television occupations were especially likely to aspire to the occupation.

At a second level, it was expected that children who believed in the reality of television (and who were heavy viewers) would aspire to jobs that are often shown on television because of their greater involvement with the medium and its content. Two sets of findings support this statement. First, among children interviewed about televi-

sion police or nurses, those who believed in the factuality of television and who were heavy viewers expressed the greatest aspirations for the job. For children questioned about real-life jobs, aspirations were not related to perceived reality or amount of television viewing.

Second, frequent viewing and the belief that television is socially realistic was associated with high aspirations for other jobs frequently shown on television. This finding supports a more general "cultivation" hypothesis suggesting that frequent exposure and acceptance of television as realistic cultivates not only beliefs about television's reality but also motivation to attain the goals most often portrayed.

Just as television provides information about television schemata, real-world experience with an occupation should provide opportunities for acquiring information about what police and nurses really do. Children's reports about their sources of real-world information, however, did not predict "accurate" real-world schemata. In fact, quite the contrary. The most reasonable explanation seems to be that children do not recall accurately where they got occupational information.

Reports of real-world sources of information did predict aspirations to be police officers or nurses, especially for children who were questioned about real-world occupations. Children may form aspirations because they have information; they may also seek information for an occupation to which they aspire.

Clearly television plays a complex role in the formation of children's occupational schemata and aspirations. On the one hand, even second graders have separate schemata for television and real-life occupations, at least when they have ample opportunity to observe both the televised and real-life versions of those occupations. Children do seem to have some means of organizing schemata that help them to differentiate what they see on television from what they believe about the real world. On the other hand, television is clearly implicated in these data as an influence on children's beliefs and aspirations. Not surprisingly, children aspire to occupations about which they have positive schemata, and both aspirations and schemata are influenced by the child's perceptions that television content is "true to life" or realistic.

These data make clear that understanding what is factual or fictional on television is not a guarantee of being able to avoid undue influence by fictional television. Once children master most of the cues for detecting factuality, they begin to rely more heavily on their judgments of realism. Hence, they may continue to accept the messages they receive from television as "real" and as applicable to their lives. Many media literacy efforts have stressed teaching the difference between fact and fiction; it appears that the next step must be to teach children how to judge the realism of the fiction they view.

References

- Adams, L. T., & Worden, P. E. (1986). Script development and memory organization in pre-school and elementary school children. *Discourse Processes*, *9*, 149-166.
- Calvert, S. L., & Huston, A. C. (1987). Television and children's gender schemata. In L. Liben & M. Signorella (Eds.), *Children's gender schemata: Origins and implications. New directions in child development* (Vol. 42, pp. 75-88). San Francisco: Jossey-Bass.
- Condry, J. C., & Freund, S. (1989, April). *Discriminating real from make-believe: A developmental study*. Presented at biennial meeting, Society for Research in Child Development, Seattle.
- CRITC. (1983). *CRITC program categorization system coding manual*. Lawrence: Department of Human Development, University of Kansas.
- DeFleur, M. L. (1964). Occupational roles as portrayed on television. *Public Opinion Quarterly*, *28*, 57-74.
- DeFleur, M. L., & DeFleur, L. B. (1967). The relative contribution of television as a learning source for children's occupational knowledge. *American Sociological Review*, *32*, 777-789.
- Dominick, J. R. (1973). Crime and law enforcement on prime-time television. *Public Opinion Quarterly*, *37*, 241-250.
- Dorr, A. (1983). No shortcuts to judging reality. In J. Bryant & D. R. Anderson (Eds.), *Children's understanding of television: Research on attention and comprehension* (pp. 199-220). New York: Academic Press.
- Dorr, A., Kovacic, P., & Doubleday, C. (1990). Age and content influences on children's perceptions of the realism of television families. *Journal of Broadcasting and Electronic Media*, *34*, 377-397.
- Elliott, W. R., & Slater, D. (1980). Exposure, experience, and perceived TV reality for adolescents. *Journalism Quarterly*, *57*, 409-431.
- Feshbach, S. (1976). The role of fantasy in the response to television. *Journal of Social Issues*, *32*, 71-85.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition* (2d ed.). New York: McGraw Hill.
- Fitch, M., Huston, A. C., & Wright, J. C. (1993). From television forms to genre schemata: Children's perceptions of television reality. In G. L. Berry & J. K. Asamen (Eds.), *Children and television: Images in a changing sociocultural world* (pp. 38-52). Newbury Park, CA: Sage.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1986). Living with television: The dynamics of the cultivation process. In J. Bryant & D. Zillmann (Eds.), *Perspectives on media effects* (17-40). Hillsdale, NJ: Erlbaum.
- Greenberg, B. S., & Reeves, B. (1976). Children and the perceived reality of television. *Journal of Social Issues*, *32*, 86-97.
- Hawkins, R. (1977). The dimensional structure of children's perceptions of television reality. *Communications Research*, *4*, 299-320.
- Hawkins, R. P., & Pingree, S. (1982). Television's influence on social reality. In D. Pearl, L. Bouthilet, & J. Lazar (Eds.), *Television and behavior: Ten years of scientific progress and implications for the eighties* (pp. 224-247). Washington, DC: U.S. Government Printing Office.
- Huston, A. C., Wright, J. C., Alvarez, M., Truglio, R., Fitch, M., & Piemyat, S. (1995). Television reality and children's emotional and cognitive responses to its social content. *Journal of Applied Developmental Psychology*, *16*, 231-251.
- Huston, A. C., Wright, J. C., Fitch, M., Wroblewski, R., & Piemyat, S. (1994). *Effects of documentary and fictional television formats on children's acquisition of schemata for unfamiliar occupations*. Unpublished manuscript, CRITC, University of Kansas.
- Johnston, J., & Ettema, J. S. (1982). *Positive images: Breaking stereotypes with children's television*. Beverly Hills, CA: Sage.
- Lichter, L. S., & Lichter, R. (1983). *Prime time crime*. Washington, DC: Media Institute.
- List, J. A., Collins, W. A., & Westby, S. (1983). Comprehension and inferences from traditional and nontraditional sex-role portrayals on television. *Child Development*, *54*, 1579-1587.
- Pingree, S. (1978). The effects of nonsexist television commercials and perceptions of reality on children's attitudes about women. *Psychology of Women Quarterly*, *2*, 262-276.
- Potter, W. J. (1988). Perceived reality in television

1718 Child Development

- effects research. *Journal of Broadcasting and Electronic Media*, **32**, 23–41.
- Potts, R., & Masters, J. C. (1984). *Affective scripts in media-derived social knowledge*. Paper presented at Society for Experimental Social Psychology, Snowbird, UT.
- Potts, R., & Masters, J. C. (1986, April). *Mass media and children's social knowledge*. Paper presented at the Conference on Human Development, Nashville, TN.
- Signorielli, N. (1993). Television and adolescents' perceptions about work. *Youth and Society*, **24**, 314–341.
- Signorielli, N., & Morgan, M. (Eds.). (1990). *Cultivation analysis: New directions in media effects research*. Newbury Park, CA: Sage.
- Turow, J., & Coe, L. (1985). Curing television's ills: The portrayal of health care. *Journal of Communication*, **35**, 36–51.
- Watkins, B. (1988). Children's representations of television and real-life stories. *Communication Research*, **15**, 159–184.
- Williams, T. M. (Ed.). (1986). *The impact of television: A natural experiment in three communities*. Orlando, FL: Academic Press.
- Wright, J. C., Huston, A. C., Reitz, A. L., & Piemyat, S. (1994). Young children's perceptions of television reality: Determinants and developmental differences. *Developmental Psychology*, **30**, 229–239.
- Wroblewski, R., & Huston, A. C. (1987). Televised occupational stereotypes and their effects on early adolescents: Are they changing? *Journal of Early Adolescence*, **7**, 283–297.