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'DEATH ENEMY' OR 'PROMOTER'?

ON THE RELATION BETWEEN FILM - /TELEVISION - CONSUMPTION
AND MOTIVATION TO READ

Totengräber- oder Anregungsfunktion?

Zur Relation von Film - /Fernsehrezeption und Lesemotivation

Im Zuge der Verbreitung der 'neuen Medien' wird immer wieder die These vertreten, insbesondere Film und Fernsehen trügen dazu bei, daß zunehmend weniger Bücher gelesen werden ('Totengräber-Hypothese'). Demgegenüber behaupten Vertreter der 'Anregungshypothese', daß die 'neuen Medien' gerade einen Anstieg des Bücherlesens bewirken. Diese Hypothesen werden zum einen auf der Systemebene anhand einer (sekundärstatistischen) Analyse 'gleicher' Werke auf der Basis von Best-seller-Listen im Medienvergleich, zum anderen auf der Individualebene konkreter RezipientInnen auf der Basis in Interviews erhobener 'critical incidents' überprüft. Auf der Systemebene ergibt sich für die 'Totengräber-Hypothese' eine Falsifikation: In der Mehrzahl der Fälle erscheint das Buch erstmals gleichzeitig mit dem Film in der Seller-Liste. Für diejenigen Fälle, in denen das Buch bereits vor Erscheinen des Films in der Seller-Liste geführt wird, läßt sich sichern, daß der Buchverkauf vom Filmerfolg profitiert und auch nach Verschwinden des Films aus der Seller-Liste nicht weniger intensiv ist als vor Beginn des Filmerfolges. Auf der Individualebene konkreter RezipientInnen ist die 'Totengräber-' zugunsten der 'Anregungshypothese' aufzugeben: Die Mehrzahl der RezipientInnen benennt eine Anregungsfunktion entweder des Buchs für den Film oder wechselseitig für Buch und Film. Die 'Anregungshypothese' ist auch bei Gruppierung der RezipientInnen nach Lesehäufigkeit für alle Gruppen aufrechtzuerhalten; allerdings wird ein gewisser Moderatoreffekt der Lesehäufigkeit der-gestalt erkennbar, daß die Anregungsfunktion für die RezipientInnen in der Gruppe 'geringe Lesehäufigkeit' am niedrigsten anzusetzen ist.

1. Introduction: Are the New Media the 'Death Enemy' of the Old?

Voicing his strong opposition to the 'new' media, a few years ago Neil Postman published his book 'Amusing Ourselves to Death'. Are we? For some months following publication, at any rate, Americans as well as Europeans woke from the apathetic stupor into which they had supposedly been transported by the audiovisual and electronic media just long enough to make the above book a bestseller. So much for the downfall of the print media?

Of course matters are not quite as simple as that - neither way. Two recent developments have contributed towards worried voices being raised concerning the potential downfall of the book: First, the supposed decrease of

free time spent on reading, while the amount of leisure time as such has increased as a consequence of the reduction of working hours; second, the increase of leisure time spent on the 'new' audiovisual and electronic media, such as (cable and satellite) television, video, video – and computer – games, etc. (cf. Franzmann & Steinborn 1978, 33ff.; Schmidtchen 1974, 710ff.; Postman 1985). It is particularly this rise of the popularity of the 'new media' that lies at the basis of the culture – pessimistic hypothesis – Postman being merely one of its many proponents – that use of the 'old' and the 'new' media of necessity exclude each other. If this is the case, and use of the 'new media' is increasing, the consequence seems almost inevitable: The more people turn to the 'new' media, the less they will turn to the 'old'; the more people watch television, the less they will read.

Since World War II, this hypothesis has been extensively tested on the level of the media system by means of polling studies, concentrating in particular upon the average proportions of free time spent on book – reading as opposed to viewing television respectively across recipients: According to Girardi et al. (1965, 43), for instance, 36 to 43% of free time per week is spent on watching television, as opposed to around 12,5% of free time spent on reading books; similar proportions are given by Schmidtchen (1968). For the seventies, Unholzer (1978, 23) reports that among children and youths aged between 6 and 17, 85% per day are reached by means of television as opposed to 46% who per day are reached by books (leaving aside school reading). For the time period between 1967 and 1973, Schmidtchen (1974, 710ff.) further reports an increase in time spent on radio and television, but a stagnation of the proportion of time spent on reading; this leads him to the conclusion that television acts as an impediment to reading. As for the time period between 1975 and 1983, the 'Leselandschaft Schweiz' (Schweizerisches Jugendbuch – Institut 1988, 42) states a decrease of around 18% in the percentage of youths aged between 12 and 15 who report having spent some time reading the previous day, while the percentage who report having watched television the day before remains constant by comparison to 1975; on the basis of these data it is again concluded that television constitutes in fact the most important impediment to reading. While refraining from any such conclusions, Meier (1981) also reports that for twelve – to fifteen – year – olds television viewing ranges higher on the list of favorite leisure time activities than reading: Within this age group, 60% report having read for entertainment the previous day as opposed to 76% who report having watched television; when questioned about the previous weekend, 49,9% report having read as opposed to 65,9% who report having watched television (o.c., W 1422). In more recent studies, a trend has become visible towards replacing the dichotomization between frequent readers on the one hand and frequent viewers of television on the other hand by greater differentiation between types of media users on the basis of communication and interest structure (cf. Saxer, Langenbucher & Fritz 1989; Fritz 1990). While

these recent typologies take into account the fact that different media may satisfy different types of interest respectively, and the use of print and AV – media hence by no means necessarily exclude each other, a tendency still remains to distinguish for instance basic motivational structures of recipients on the basis of the preferred medium – which leads back to precisely the dichotomization between users of the book – and the AV – medium, this time seen from a different perspective.

In this sense, television is also believed to negatively effect media competence by furthering a predominantly passive consumption attitude that goes along with an only superficial processing of information, thus setting up a vicious circle between (lack of) reading motivation and reading competence: Reading constituting an activity requiring the active selection as well as processing of information and readers having repeatedly been shown to be generally more active in their pattern of leisure time activities than non – readers (cf. Groeben & Scheele 1975; Fritz & Suess 1985, 463f.; 1986, 31ff.; Schweizerisches Jugendbuch – Institut 1988, 40), while television viewing supposedly constitutes a predominantly passive, escape – and entertainment – oriented occupation leaving these competences unused, persons who spend large proportions of time watching television will be neglecting these competences required for reading and hence encounter difficulties when attempting to read a book. Reading will then be perceived as unpleasantly strenuous, reading motivation will decrease, time spent watching television will increase, thus in the described manner further decreasing motivation to read (cf. Bonfadelli & Saxer 1986; Franzmann 1989). The assumption at the basis of this vicious circle that persons who frequently watch television and do not read process information less deeply and do not remember it as well as persons who read frequently could for instance be confirmed by Noelle – Neumann (1988), who on the basis of longitudinal studies concluded that although interest in politics had risen rapidly with the introduction of television in Germany, knowledge of politics had remained the same. Similarly, Bonfadelli & Saxer (1986) conclude on the basis of an empirical study comparing persons according to their habitual pattern of media use on the amount of information remembered from a television program, that while habitual reading appears to have a general positive effect on information processing regardless of the medium in which the information is presented, habitual television viewing apparently has no effects whatsoever on information processing.

Data such as the above have led to yet another resurrection of the 'death enemy hypothesis' in the tradition of cultural pessimism, which in its most general form states: Ever more recipients are spending ever greater proportions of leisure time on passively receptive forms of media consumption such as television – at the expense of media requiring a more active reception attitude such as book – reading.

However, quite a different interpretation can be put on these data if they are looked at in the context of data from other, sometimes even the same studies. In the first place, while proportions of leisure time spent on reading as compared to more passive types of media consumption are reported to go down, the sales rates for books are in fact reported to go up (cf. Börsenverein d. deutschen Buchhandels: *Buch und Buchhandel in Zahlen*, 1952ff.; Franzmann & Steinborn 1978, 17f.; Fritz & Suess 1985, 439). This suggests that although time spent on reading might have decreased if seen in proportion to time spent on other leisure time activities, the absolute amount of time spent on reading might in fact have increased by comparison to earlier decades. In addition, a fair number of polling studies demonstrate that there in fact exists a correlation between frequency of viewing television and reading (cf. Girardi et al. 1965; Börsenblatt für den Deutschen Buchhandel 1967; 1968; Steinberg 1970). Other studies even provide a sufficient basis for the conclusion that reading is actually promoted by television viewing – without, however, explicitly drawing that conclusion or even remarking upon those data (cf. Franzmann & Steinborn 1978). Thus, the very studies on which the 'death enemy hypothesis' rests, can actually be shown to contain the data required to support the alternative 'incentive hypothesis' – as Steinberg has in fact been pointing out for some time (cf. Steinberg 1970; 1983a; 1983b; 1986; 1987). More recently, Langenbucher & Saxer (1989) have claimed explicitly that precisely because reading demands higher competence than, for instance, watching television, and hence, so to speak, requires 'getting used to', other media such as radio and television help to promote reading of books.

This competing 'incentive hypothesis' has been put forth in its strongest form by Steinberg, who claims: "...the more we watch television, the more we will read, because in reality TV is the most important promoter of reading" (1983b, 3). Steinberg also points out that the rise of cultural pessimism as to the spreading of television, culminating in the fear that the 'old' media will be 'eaten up' by the 'new' does by no means constitute an entirely new phenomenon: Already before World War One, when the circulation of newspapers was rising rapidly, the end of the book was believed to be near. In the twenties, when the radio was on its way up, the downfall of the book was again lamented, likewise in the forties and fifties, when the cinema was gaining ground; today, the role of 'death enemy' is attributed to television – the book, however, has remained and presumably will continue to do so when the next 'death enemy' appears on the media-scene. As a matter of fact, most of the dangers associated with watching television were once, at the turn from the 18th to the 19th century, attributed to book-reading: Reading was said to be addictive, a veritable drug, a narcotic inducing apathy, hypnotizing the servant girls into neglect of their duties (cf. Steinberg 1970; 1983a). One reason for this former derogation of the book and present degradation of television, according to Steinberg, might have something to do with the general low status

of the mass media: Book-reading was believed to be dangerous just at the time when books were beginning to be available to members of the lower classes and thus in 'danger' of turning into a 'medium for the masses'. Likewise, television counts as a 'mass medium', leading to addiction – of others, not oneself.

This dichotomy between the 'mass medium' television and the 'high' medium book is reflected by the dichotomization between the reception attitudes associated with those media respectively and their evaluation: book reading as active search for information, self-knowledge and emancipation, television watching as 'mere' entertainment and escape. Why should television not be watched out of a motivation for self-knowledge, and why should books not be read for entertainment, as, of course, they sometimes are (for the corresponding 'class-model' of literature distinguishing between 'high' and 'low' types as well as corresponding attitudes of reception cf. Bürger 1973; Bürger et al. 1982; Schulte-Sasse 1976; Nusser 1982; for a summary see Groeben & Vorderer 1988, 104ff.)?

This implicit dichotomization at the basis of the 'death enemy hypothesis', however, has the effect that evidence potentially falsifying the hypothesis does not even come into view. This includes not only promoting incidences such as the sudden demand for Fontane after the showing of the first part of 'Der Stechlin' on German television reported by Steinberg (1983a), but also the fact that around a quarter of the population has been shown to make intensive use of several media, newspapers, magazines, radio, television and books and can hence count as frequent 'multi-media-users' (cf. Langenbucher & Saxer 1989; Bonfadelli & Saxer 1986; Franzmann 1989; Steinberg 1970; 1986). For this user-group, at any rate, the 'new media' serve to draw attention to books of potential interest and can hence be regarded as promoters rather than the enemy of reading. Moreover, while in the past this group of frequent multi-media-users has been largely restricted to persons with a higher education (as the group of persons reading frequently in general), recently there has been a trend, particularly among young people, towards more frequent (book-)reading and thus a differentiated use of the media in general, regardless of social class (cf. Langenbucher & Saxer 1989, 504).

Taking into account the above data as well as the potential interpretation biases in relation to those studies which are cited in support of the 'death enemy hypothesis', the 'death enemy hypothesis' does not appear to accurately describe the relation between 'old' and 'new media'. An alternative to the 'death enemy hypothesis' can be formulated in a 'weak' as well as a 'strong' version. In the 'weak' version, the alternative hypothesis merely denies the 'hostile' relation between 'old' and 'new media' without making any assumptions as to a potential promoting relation between the media: The 'new media' do not act as an impediment to reading. In the 'strong' version, the alternative

coincides with the 'incentive' hypothesis: The 'new media' can act as promoters of reading.

In order to test these hypotheses, it appears more promising to turn to individual cases rather than conduct analyses across recipients. Such an analysis of individual cases can, however, take place on the systems level (the media) as well as on the level of the individual (actual recipients). In this paper, both approaches will be presented: On the systems level, the 'weak' version of the alternative hypothesis will be tested by means of (secondary statistical) analysis of the sales trends for books which are also available as films or television programs on the basis of bestseller lists (comparison across the media); on the level of the individual, both the 'weak' and the 'strong' version of the alternative hypothesis will be tested on the basis of 'critical incidents' as well as their potential 'hostile' or 'promoting' effects as reported by recipients in the course of interviews, which are then content-analysed and brought together with questionnaire-data concerning the frequency of use of the respective media. As the 'death enemy hypothesis' predicts a decrease in reading frequency especially in relation to fiction, we will in the following studies draw test cases on the systems as well as critical incidents on the individual level from the area of fiction only, leaving non-fiction aside.

2. The Systems Level: Comparison of Bestsellers

2.1. Theoretical Background

If the cinema and television are, so to speak, the 'natural' enemies of reading and draw potential readers away from books by presenting the respective plots in an easy-to-consume, 'get to know the world's most famous books in two hours at a time'-way, this ought to show in the sales data for the respective media: If the same 'story' is available in form of a book as well as in form of a film or a series on television, then the sales quotes for the book, according to the 'death-enemy-hypothesis', which assumes that people will turn to the film instead of the book, ought to go down once the film has come out; if, alternatively, the 'death enemy hypothesis' is not correct, this ought to result in the sales data for the book remaining stable or even going up, once a corresponding film or television program comes out. While this latter, alternative, prediction coincides with the prediction to be made on the basis of the 'incentive hypothesis', stable or even increasing sales data for the book can nevertheless not be counted as evidence in favor of the 'incentive hypothesis': Sales data by themselves do not warrant any conclusions

as to an increase in reading motivation - at X-mas, for instance, there is generally a large increase in sales data for books, while reading motivation presumably remains constant. Hence sales data permit only a testing of the 'death enemy', not the 'incentive hypothesis'.

Actual sales data for potentially relevant books are hard to come by: In the first place, publishing houses, bookstores, and libraries do not readily make their data available; secondly, the amount of test cases is simply huge, ranging from 'Gripsholm' over 'Rambo III' to Peter Greenaway's films and books. The media industry does, however, itself provide data which serve our purpose and at the same time imply a reduction of test cases down to a reasonable number: the so-called seller-lists which give the titles of the ten to fifty most popular books, films, television programs etc. of the week or month by ranks. While these lists do not give actual sales data but provide information merely as to the popularity of one title in relation to other titles, they are nevertheless based on sales data (for methods of sampling and data collection see below); hence it would seem plausible that the 'hostile' effect predicted by the 'death enemy hypothesis' will show in the rank data, provided that the listings of film and book overlap at least briefly. We thus decided to test the 'death enemy hypothesis' on the basis of seller-lists, sampling only those cases in which both book and film are ranked among best-selling titles.

2.2. Sampling Procedure

Seller-lists giving rankings for the ten most popular films as well as television programs by the week have been published in Germany by the magazine 'Stern' since July 1984; the data are collected by Media Control, a marketing research company, in collaboration with GfK, Filmecho and TV-Quick, and can be considered representative. Rankings of films and television programs before July 1984 are not readily available. 'Stern' also provides information on rankings for books, giving again the ten or fifteen most popular titles per week. Having access to the ten or so most popular titles only, however, would hardly permit following sales trends; the book would be listed during its peak period of popularity and then drop out of sight. Hence we did not sample the data given by 'Stern' on book listings, but turned instead to 'Buch Report', a weekly booksellers' magazine, which publishes seller-lists giving the fifty most popular titles in hardback as well as the twenty-five or fifty most popular titles in paperback edition (for fiction as well as non-fiction titles). The data are collected by 'Buch Report' on the basis of sales reports of 500 bookstores which in turn can be considered a representative sample of German bookstores. Although 'Buch Report' has been publishing its seller-lists

since earlier than July 1984, these earlier lists were of no interest to us, as we required information on both book and film listings.

On the basis of the information provided by 'Stern' and 'Buch Report', the following rankings for books, films and television programs made up our final sample material, spanning a period of approximately five years (cf. table 1):

	number of rankings for: film	television	paper- backs	hard- backs
July 1984 – Dec. 1984	1 – 10	1 – 10	1 – 50	1 – 50
Jan. 1985 – Dec. 1985	1 – 10	1 – 10	1 – 50	1 – 50
Jan. 1986 – Dec. 1986	1 – 10	1 – 10	1 – 25	1 – 50
Jan. 1987 – Dec. 1987	1 – 10	1 – 10	1 – 25	1 – 50
Jan. 1988 – Dec. 1988	1 – 10	1 – 10	1 – 25	1 – 50
Jan. 1989 – Nov. 1989	1 – 10	1 – 10	1 – 50	1 – 50

Table 1: Ranks for the Different Media as Provided by Seller-Lists from July 1984 until November 1989

2.3. Methods

From this sample material, i.e. all books, films and television programs which appeared on the seller-lists between July 1984 and November 1989, those titles were selected which met our criteria of being listed in form of a book as well as in form of a film or television program simultaneously or within short distance of each other. These titles were then, by order of appearance of book and film/television program, put into one of three categories:

- (1) book and film appear on the seller-lists simultaneously
- (2) film appears on the seller-list first, book follows
- (3) book appears on the seller-list first, film follows

Titles were put into categories (2) and (3) only if there was a period of at least one and a half months between first listings of the titles in the different media. If on the other hand book and film/television program were first listed within a distance of one to four weeks, the title was considered a case of simultaneous appearance.

Titles falling into either category (1) or (2) do per se constitute evidence against the 'death-enemy-hypothesis': If a book is not listed among best-selling titles at all before the appearance of the corresponding film on the list, but first shows on the list either together with the film or following the film, the film has certainly not reduced but rather increased sales quotes for the book. For this reason, a further analysis of sales trends for cases within categories (1) and (2) would have yielded no information of interest in this context. Thus, a further, in-depth analysis of the rank data was carried out for cases within category (3) only.

Further analysis of cases in category (3) requires a comparison of rankings for the respective books before the appearance of the corresponding film on the lists with rankings while both book and film are on the lists as well as with rankings for the books when the film is no longer on the lists. As times of simultaneous appearance tend to be fairly short for book/television program combinations, only book/film combinations in category (3) were included in the sample subjected to this closer analysis.

The further analysis of book/film combinations comprised the following steps: illustration of trends found within the sample; computation and illustration of average sample trend; comparison of mean book ranks before the listing of the film to mean book ranks during the period of simultaneous appearance; comparison of mean book ranks before the listing of the film to mean book ranks when the film is no longer listed. As to the comparison of mean book ranks before the film is listed to book ranks during the period of simultaneous appearance, the 'death enemy hypothesis' would predict book ranks to go down during the period of simultaneous appearance, while the alternative hypothesis would predict mean book ranks to remain stable or to go up. As to the comparison of mean book ranks before the film is listed to book ranks when the film is no longer listed, again the 'death enemy hypothesis' would predict mean book ranks to be lower after the disappearance of the film from the list than before the film was ever listed at all, while the alternative hypothesis would predict that mean book ranks not differ significantly before and after the listing of the film. To test for the significance of differences between mean book ranks, t-tests for dependent samples were carried out.

2.4. Results

Looking at combinations of book/film and book/television program separately, the following frequency distributions over the categories of listing order result (cf. table 2):

number of:	book/tv program:		book/film:	
	films	books	films	books
(1) simultaneous	25	33	36	38
(2) film first	2	2	5	6
(3) book first	4	4	13	15
total	31	39	54	59

Table 2: Frequency Distribution of Test Cases from Seller-Lists across Categories according to Order of Appearance

The majority of cases falling into either category (1) or (2) per se constituting evidence against the 'death enemy hypothesis', and book/television program combinations not being further considered in this context, there remain only 15 book/film combinations to be subjected to an in-depth analysis. A first 'by rule of thumb'-comparison of book rankings for the time periods previous to film, simultaneous and following film reveals three types of trends within the sample: upward, stable, and slight tendency downwards, with only 2 cases in the 'downwards'-category; the exact frequency distribution is given in the following table (cf. table 3):

category (3)	trend:	upwards	stable	downwards
no. of cases:		7	6	2

Table 3: Frequency Distribution of Cases in Category (3) across Categories Indicating Trend

To illustrate the trends found in the sample, the following typical examples were selected for each type of trend, including for comparison typical examples for categories (1) and (2) as well:

- category (1): 'Die Farbe Lila'
- category (2): 'Dirty Dancing'
- category (3), trend upward: 'Herbstmilch'
- category (3), trend stable: 'Die Unerträgliche Leichtigkeit des Seins'
- category (3), trend slightly downward: '1984'.

For the example illustrating category (1), mean ranks were computed for seven months, starting with the first appearance of book and film on the list respectively. While the film remains on the list only for three months (with a strong downward trend), the book stays on the list considerably longer than the seven months for which mean ranks were computed. Also, the book rankings are high throughout, with no downward trend being recognizable. These trends are shown in figure 1. While book rankings are by no means always this high in cases of simultaneous appearance of book and film on the lists, the example is typical insofar as books falling into this category generally remain on the lists longer than the corresponding films.

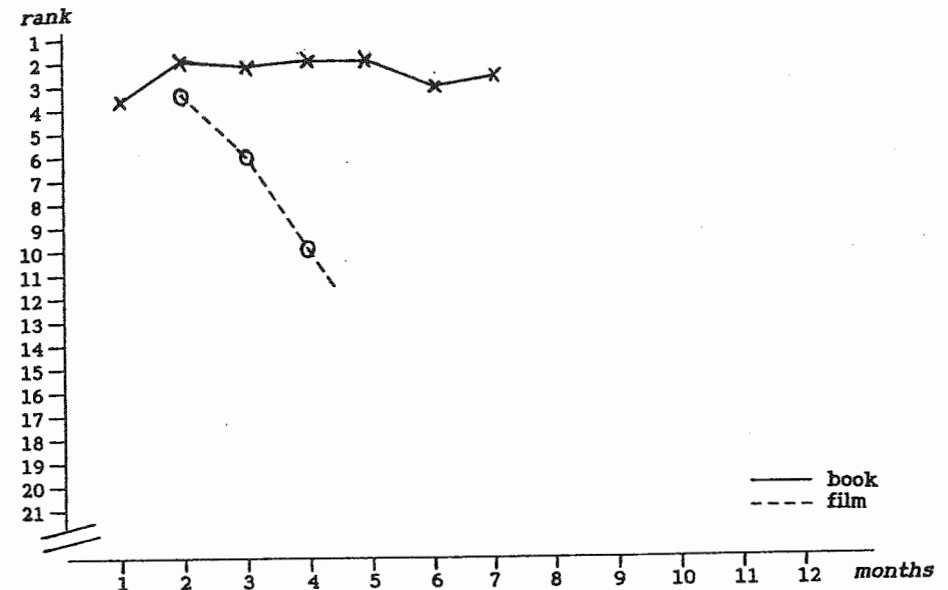


Figure 1: (1) Simultaneous Appearance of Book and Film:
'Die Farbe Lila'
Mean Ranks for Book and Film

For the example illustrating category (2), mean ranks were computed also for seven months, starting with mean film rankings three months before the first appearance of the book on the seller-lists, the first listing date for the book coinciding with the last listing date for the film. The resulting trends are shown in figure 2. During the last two months of its appearance on the list, the film shows a strong downward trend; the book at first shows a slight upward trend, but after three months a slight downward trend is beginning to set in.

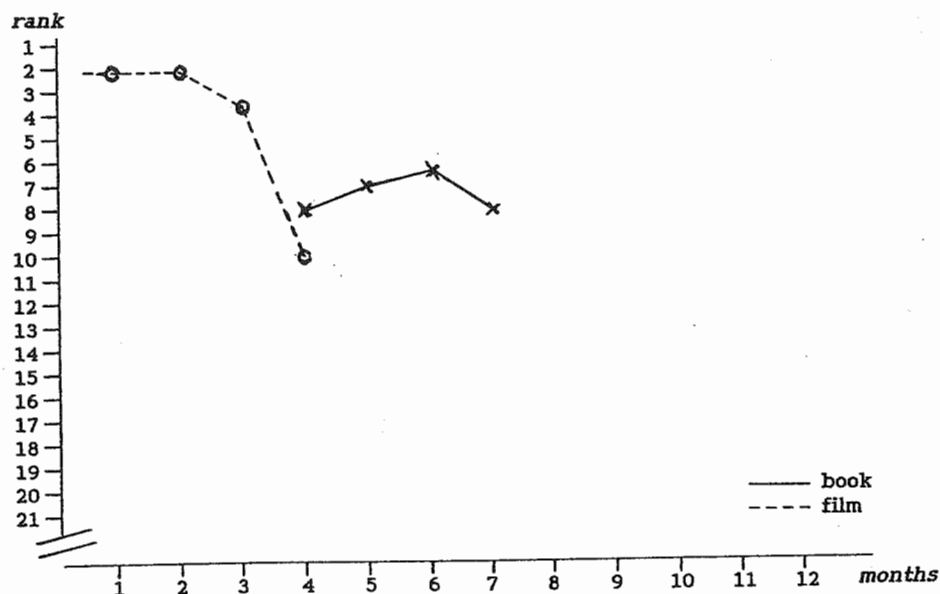


Figure 2: (2) Film Listed First, Book Follows:
'Dirty Dancing'
Mean Ranks for Book and Film

For the three test cases in category (3), mean book rankings were computed for the three months preceding as well as the three months following the period of simultaneous appearance of book and film on the lists; for the periods of simultaneous appearance mean ranks were computed for both film and book, likewise by the month. The resulting trends are shown in figures 3, 4, and 5. The film in each case reaches a peak shortly after its first appearance on the list, then goes down again; the respective trends for the books are clearly visible. It should be noted that there is a short peak for the

book coinciding with the first listing date for the film even in the last case, where the general trend for the book is a slightly downward one.

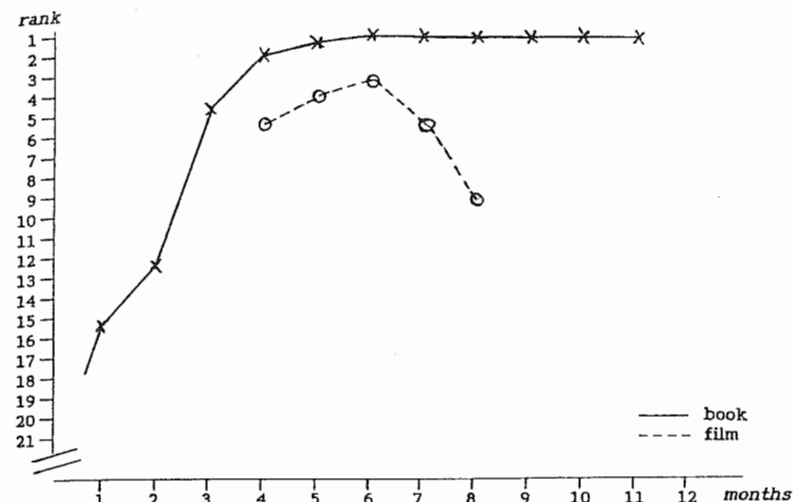


Figure 3: (3) Book Listed First, Film Follows; Trend Upward:
'Herbstmilch'
Mean Ranks for Book and Film

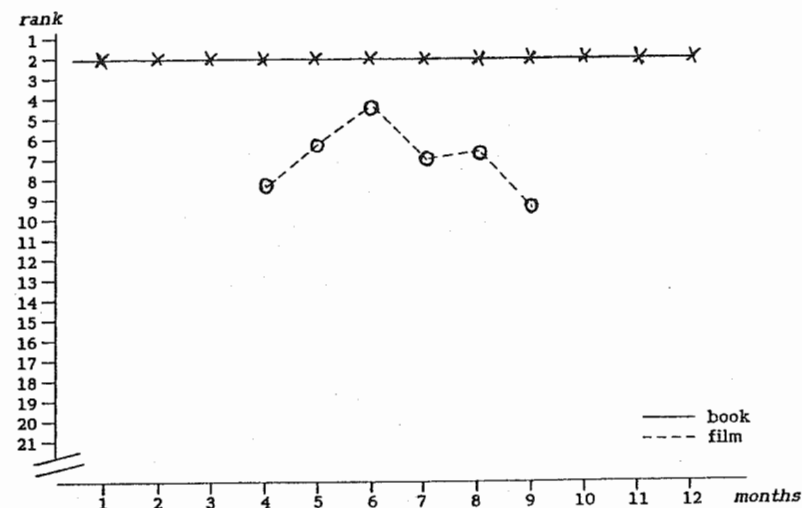


Figure 4: (3) Book Listed First, Film Follows; Trend Stable:
'Die Unerträgliche Leichtigkeit des Seins'
Mean Ranks for Book and Film

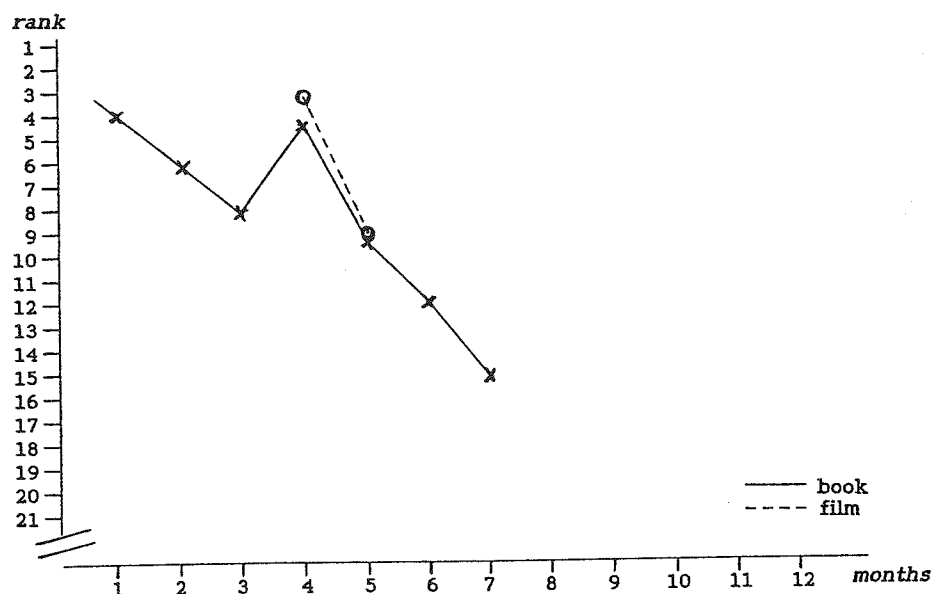


Figure 5: (3) Book Listed First, Film Follows; Trend Slightly Downward:
'1984'
Mean Ranks for Book and Film

To illustrate the average trend within the sample, mean rankings were computed for each of the fifteen books for the three months preceding as well as the three months following the period of simultaneous listings of book and film. The periods of simultaneous listings themselves were divided into quarters; for each quarter, mean ranks were computed for both books and films. In a second step, the mean rank for all fifteen books was computed for each month and quarter. The resulting average trend is shown in figure 6. On average, the books are listed with a relatively low rank (of 18) three months before the respective films show on the lists. Then a strong upward trend sets in, reaching its peak during the second quarter of the period of simultaneous listing. Then a downward trend begins to be visible, coinciding with a similar trend for the films. While the films are still on the lists, however, this downward trend for the books is only slight, increasing only after the films have dropped from the lists. Three months after the period of simultaneous listings, the average book rank is 19.5, a value slightly below the initial ranking three months before the appearance of the films on the lists.

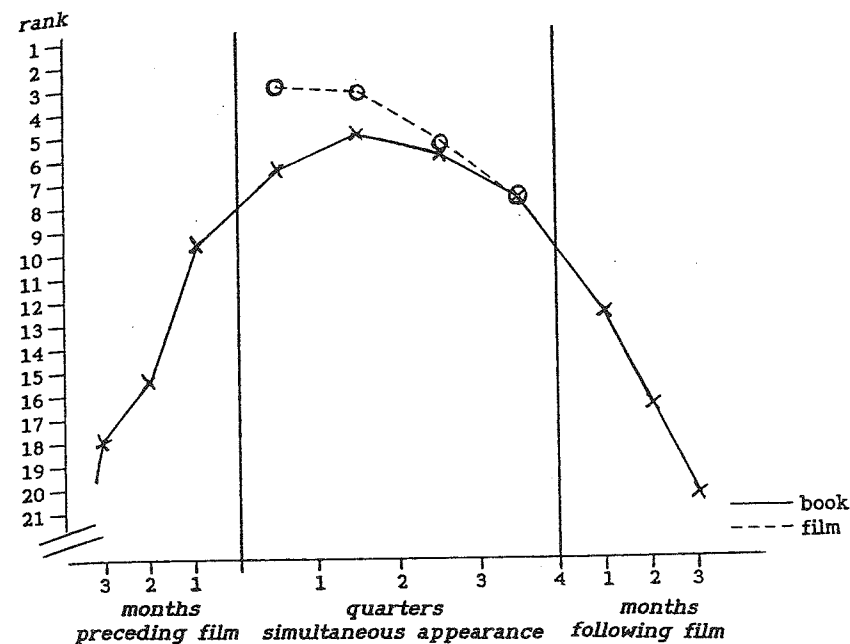


Figure 6: Average Trend for Cases of Book Listed First, Film Follows (3)

In order to test for differences between mean book ranks before listing of the film and mean book ranks during the period of simultaneous listing as well as between mean book ranks before and after the listing of the film (for corresponding hypotheses see above 2.3.), two t-tests for dependent samples were carried out. For this purpose the three groups of mean rankings computed for each book were averaged respectively, which yields three values per book: a first average value for the three months preceding the film listing, a second for the period of simultaneous appearance on the lists, and a third for the three months following the film listing. The following table shows the three average values for all books as well as the results of the t-testings (cf. table 4):

Among the values for t, the first value shows that on average the book rankings are significantly higher during the period when both book and film are listed than during the months before the film appears on the lists. This evidence against the 'death enemy hypothesis' is not outweighed by the second t-value, which turns out to be non-significant. Average book rankings three

months after the disappearance of the film from the lists do thus not differ significantly from average book rankings during the period before the listing of the film.

Title	mean ranks before film	simulta- neously	after film
Also sprach Bellavista	27,16	4,62	14,66
Anna (HB)	39,75	23,60	37,41
Beim nächsten Mann...	1,00	1,15	2,33
Ganz unten	1,00	1,00	2,16
Herbstmilch	10,81	1,37	1,00
Ich war Kaiser von China (HB)	23,25	8,65	23,33
Ich war Kaiser von China (PB)	16,00	1,41	4,51
Momo	30,91	5,90	21,51
Moonwalker	35,26	21,50	43,25
Name der Rose (HB)	11,00	5,05	20,33
Name der Rose (PB)	1,00	1,00	2,50
Nachschrift zum Namen der Rose	6,41	7,10	44,08
1984	6,16	7,00	14,66
Unendliche Geschichte	4,50	4,50	9,41
Unerträgliche Leichtigkeit	2,00	2,00	2,00
mean rank per time period:	14,41	6,39	16,20
t ₁ (before film/simultaneously)	= 3,39	df = 14	p < 0,005
t ₂ (before film/after film)	= -0,59	df = 14	p = 0,3

Table 4: Mean Book Ranks for Time Periods Preceding, Simultaneous with, and Following Film

2.5. Discussion

On the basis of bestseller-lists covering a time span of approximately five years, 39 book/television program and 59 book/film combinations were found which constitute potential test cases for the 'death enemy hypothesis'. Among these, the majority of cases (71 out of a total of 98) constitute examples of either the simultaneous appearance of book and film/television program on the seller-lists or examples of the film being listed first and followed by the book. All examples of this type can per se be regarded as evidence against the 'death enemy hypothesis'. Furthermore, a comparison of numbers of books and numbers of films per category shows that one film so to speak occasionally 'supports' more than one book, as the number of books is generally larger than

the number of films per category. In our sample this tendency is particularly strong in cases of the simultaneous appearance of television programs and corresponding books on the seller-lists: A biographical film on the life of Peter the Great in three parts, for instance, coincided with the appearance of three biographies on the seller-lists; and when the highly popular series 'Schwarzwaldklinik' first made its appearance on German television screens, no less than four books describing the lives of the main characters made it onto the lists while the first twelve parts of the series were showing. Already on this basic level of analysis, the data thus clearly do not support the 'death enemy hypothesis'.

A closer analysis of the fifteen 'hardest' test cases, the cases of books being listed first and followed by the film, reveals an upward or stable trend of book rankings with the appearance of the film on the lists for 13 books; only the remaining two show a slightly downward trend. On average, the appearance of the films on the list can thus be said to definitely increase the sales quotes for the respective books. The upward trend for the books setting in two months before the films are first listed is most likely due to the films already showing in the cinemas and thus already having an effect on the sales quotes for the books, while not yet having reached one of the 'top ten' ranks, and thus not yet showing on the lists.

This increase of sales quotes for books in the sample can be confirmed by secondary statistical analysis comparing average book rankings for the time periods before, during and after the film listings¹: As predicted by the alternative hypothesis, average book rankings during the period of simultaneous appearance of book and film are significantly higher than average book rankings for the three months preceding the film listings; book rankings for the three months following the simultaneous listing do not differ significantly from book rankings before the film listings.

Altogether these data can be regarded as clear evidence against the 'death enemy hypothesis': If a book is made into a film, this does not reduce the sales quotes for the book. If the film is popular and the book is not yet on the seller-lists when the film comes out, the book frequently 'accompanies' the film into the lists. If the book is already on the list, the sales quotes for the book on average go up for several months, then drop back to 'pre-film-level'. The film can thus be said to indeed increase sales of corresponding books - a fact that the media industry has long since recognized not only by making best-selling books such as 'The Name of the Rose' into a film, but also by frequently publishing new editions of such books once the film has come out, adding to the title: 'recently been made into a film with...'. On the

¹Taking into account that the showing of the films in the cinema is already having an effect on book ranks before the film becomes one of the 'top ten', this does actually constitute a very 'hard' test of the alternative and a very 'weak' one of the 'death enemy hypothesis'.

systems level, the 'weak' version of the 'incentive hypothesis' can thus be confirmed: The 'new' media do not act as an impediment to the 'old'.

It would, however, be premature to now draw the conclusion that film and television have been shown to generally act as incentives increasing the motivation to read. In the first place, having limited our sample to bestseller-lists, the conclusions drawn above concerning the 'death enemy hypothesis' are of necessity also limited to bestsellers. Highly popular films frequently go along with an increase in sales of the corresponding books – best-selling books. Maybe, if the data were available, such an increase in sales could be shown for other types of books as well, but on the basis of the above data we simply cannot tell. Secondly, as we already pointed out above, neither does evidence against the 'death enemy hypothesis' constitute evidence in favor of the 'strong version' of the 'incentive hypothesis', nor is an increase in sales data equivalent to an increase in reading motivation. Addressing the question whether films not only raise the sales quotes of corresponding books but actually have an effect on reading motivation as well, requires an altogether different approach, which will be described next.

3. The Individual Level I: The Critical Incidents Approach

3.1. Theoretical Background

Turning from the systems to the individual level, representatives of the 'death enemy hypothesis' argue that while book sales in general might well be increasing (as could be shown above for the special test case of books made into films), the individual nevertheless tends to spend ever greater proportions of leisure time on the new media such as television and cinema and correspondingly ever smaller proportions of leisure time on books (see above: 1.). Proponents of the 'incentive hypothesis' by contrast assume that the new media in fact even serve to promote interest in reading by drawing attention to books of potential interest (cf. Franzmann & Steinborn 1978, 22ff.; Steinberg 1983a; Weber 1970, 135); furthermore, they also deny the assumption implicit in the 'death enemy hypothesis' that individuals pursue their interest in the new media at the expense of the old (cf. Groeben & Vorderer 1988, 44f.; see also above: 1.). On the background of data bearing out this latter assumption that an interest in television and cinema and an interest in reading by no means necessarily exclude each other (cf. Girardi et al. 1965, 60; Hein 1974, 56ff.; Franzmann & Steinborn 1978, 79ff.), the 'incentive hypothesis' can be expanded so as to include a promoting relation in both directions: Reading can

be a promoter of television and cinema; television and cinema can be promoters of reading.

3.2. Methods and Procedure

To test this hypothesis, semi-structured interviews employing the 'critical incident approach' were conducted and subjected to content-analysis; on average, the interviews lasted approximately 10 minutes. 66 persons between age 15 and 69 participated in the study; subjects were not paid for participation. The interviews were recorded on tape and then transcribed for content analysis.

At the beginning of the interview the purpose of the study and questions to be asked were explained and examples of potential critical incidents given, i.e. examples of books which had been made into a film such as 'Doktor Schiwago' as well as examples of films and television series which had been made into a book such as 'Kir Royal' or 'Alf'. To minimize social desirability effects as far as possible, it was stressed that all incidents, films as well as books, were of equal interest; to further minimize potential biases in favor of reading, the interviews generally began with the question whether participants remembered ever having seen a film that also existed in form of a book. For each incident remembered, the title was asked if it had not been given spontaneously; it was further asked whether the book was known to the participant at the time of watching the film. If this was the case, further questions included reasons for watching the film, liking of film and book and interest in rereading the book. If the corresponding book was not known to the participant, questions asked concentrated on liking of the film, potential interest in reading the book, and respective reasons for the existence or lack of interest. The same types of questions were asked for each book-incident named by the participant. If in case of the book-incidents the participant made a distinction between books made into a film and books published in addition to a film or television series, questions were added as to whether the participant evaluated books published in addition to a film negatively, and, if so, for what reasons. These additional questions will, however, not be further discussed in this context.

3.3. Content Analysis

After transcription, the interviews were subjected to content analysis. Units of analysis were the participants' replies to the interview-questions corresponding to the categories used for content analysis respectively. Two types of categories were employed: incident-specific and person-specific categories. On the incident-specific categories, ratings were conducted for each of the critical incidents named by a participant; these categories included factors such as the reception sequence, liking of the presentation in the different media respectively, reasons for interest in the reception of the 'plot' in the 'other' medium, etc.. The ratings on these incident-specific categories served as the basis for the ratings on the person-categories; within these categories, summary ratings were conducted for each participant across all critical incidents named. The person-specific categories included factors such as presence of stimulation, predominant direction of stimulation, etc.. The following table shows category-names as well as subcategories (cf. table 5):

- I. incident-specific categories
 - medium of reception or order of reception
 - interest in other medium
 - reasons for interest
 - reasons for lack of interest
 - comparison by preference
- II. person-specific categories
 - existence of critical incidents
 - books
 - films
 - book published in addition to film
 - distinction
 - negative evaluation
 - reasons for negative evaluations
 - own experience
 - stimulation
 - direction
 - reasons for stimulation
 - reasons for lack of stimulation
 - interest in rereading the book
 - source of reading time

Table 5: Categories Used in Content - Analysis

All categories are exhaustive. For the 'reasons'-categories, multiple ratings were possible; all other categories are mutually exclusive. As the incident-specific categories constitute the basis for the person-specific ratings, interviews were rated first on the incident-specific, then on the person-specific categories.

After training in the application of the category-system, the content-analysis was carried out by two independent raters. Interrater-reliabilities were calculated according to Fleiss' Kappa for two raters (which corrects for chance interrater-agreements; Fleiss 1971) for the separate categories as well as across all categories. The resulting overall value of 0,77 can be taken as an indicator of good interrater-agreement. Following the calculation of Kappa, for further statistical analysis cases of disagreement were distributed at random across the respective categories named by the two raters.

3.4. Results

The following tables give the frequency distribution within our sample of participants as to sex, age group and type of education (cf. tables 6,7,8):

male	34
female	32

Table 6: Frequency Distribution according to Sex

below 25	19
25 to 29	22
30 to 40	15
above 40	10

Table 7: Frequency Distribution according to Age Group

A - levels	50
no A - levels	16

Table 8: Frequency Distribution according to Type of Education

The sample of participants can count as representative as to sex and as approximately representative as to age, all age groups being represented with a slight bias towards the younger age-groups. As to type of education, however, there clearly exists a very strong bias towards participants with a higher education. While comparisons by chi-square for distributions across the above content-analytic categories do not point to any significant differences between participants grouped according to type of education, numbers are too small to permit any generalisations to the group without A-levels. The results detailed below can therefore be taken to apply primarily to persons having completed A-levels.

For a testing of the 'incentive hypothesis', the distribution of participants across the person-specific category 'stimulation' and its subcategories under 'direction' is of primary interest, 'stimulation' constituting a summing up per person across the incident-specific category 'reasons for interest in other medium'. 'Stimulation' was coded when in the majority of incidents named the participant stated in the interview that she was either interested in seeing the corresponding film/reading the corresponding book or had in fact done so for reasons related to previously having read the book/seen the film. Such reasons included for instance the wish to find out how the respective plot had been handled in the other medium, the wish to compare the two, to live through the story again, to gain certain kinds of information not available in the first medium, etc.. The 'stimulation'-category itself was further divided according to the prevalent direction in which stimulation generally occurred for a particular person into the subcategories: 'from book to film' if knowledge of a book generated interest in seeing the film, but not the other way around; 'from film to book' if knowledge of a film generated interest in reading the book, but not the other way around; and 'both directions' if having read a book increased interest in seeing the film and seeing a film increased interest in reading the book. For the frequency distribution of participants across the four categories 'no stimulation', 'from book to film', 'from film to book', and 'both directions' the value of chi-square was calculated, comparing the obtained to the expected distribution across categories. According to chance expectancy, participants would be distributed equally across the categories 'stimulation' and 'no stimulation', i.e. one half in either category; the category 'stimulation' being further divided into three subcategories and the assumption of chance expectancy still holding, participants within the category 'stimulation' would again be distributed to equal parts across the three subcategories. The following table gives the obtained frequency distribution across the four categories, the expected frequencies according to the assumption of equal distribution, and the resulting value of chi-square (cf. table 9):

	no stim.	B -> F	F -> B	B < -> F
frequencies:				
observed	9	28	3	25
expected	33	11	11	11
$\chi^2 = 65,9$	df = 3	p < 0,0001		

Table 9: Obtained and Expected Frequencies across Categories of Stimulation

Chi-square is highly significant, indicating that the observed frequency distribution differs strongly from the expected equal distribution of frequencies across cells. Closer analysis of the cell frequencies shows that in the first place there are only very few cases in which no stimulation at all is reported and even fewer cases in which stimulation takes exclusively the direction 'from film to book'. By contrast, frequencies are far higher than expected for the categories 'from book to film' and 'both directions'.

For further statistical analysis we concentrated on the 53 cases of stimulation in the categories 'from book to film' and 'both directions', the cases of 'no stimulation' yielding no further data of interest in this context and number of cases in the category 'from film to book' being too small to permit any useful further analysis. In a first step, the hypothesis was tested that persons for whom stimulation takes place in both directions are more differentially motivated than persons for whom stimulation occurs only from book to film - that is, that persons for whom stimulation takes place in both directions would name a greater variety of reasons for stimulation. For this purpose, the categories 'from book to film' and 'both directions' were put in relation to the category of 'reasons for stimulation', which included the subcategories: 'comparison' if the participant was motivated to find out how the plot had been handled in the other medium; 'reliving' if the participant gave as a reason for interest in the other medium the wish to live through the story again; 'information' if the participant wished to gain information from the second medium not available in the first; 'others' if other reasons were given which did not fit any of the former three categories. In a second step, the supplementary hypothesis was tested, that persons for whom stimulation occurred in both directions would on average also name a higher number of reasons than persons for whom stimulation took place from book to film only. For this purpose, the categories 'from book to film' and 'both directions' were further put in relation to the number of different reasons given for interest in the other medium ('one reason', 'two reasons or more'). For both steps, chi-square values were computed, comparing the frequency distributions across the

categories 'type of reason' and 'number of reasons' between the groups 'from book to film' and 'both directions'. The following two tables show the obtained frequency distributions and resulting values for chi-square² (cf. tables 10 and 11):

Both values for chi-square are significant, analysis of the cell frequencies showing that participants in the category 'both directions' on average name a greater variety as well as a higher number of reasons for interest in the other medium.

	comparison	reliving	information	others
B - >F	23	3	1	1
B < - >F	14	4	7	0

$X^2 = 9,217$ $df = 3$ $p < 0,05$

Table 10: Cross-Table of Frequencies for the Categories 'Direction of Stimulation' and 'Type of Reason for Stimulation'

	one	two or more
B - >F	23	5
B < - >F	8	17

$X^2 = 13,6$ $df = 1$ $p < 0,0001$

Table 11: Cross-Table of Frequencies for the Categories 'Direction of Stimulation' and 'Number of Reasons for Stimulation'

3.5. Discussion

Of primary interest for a testing of the 'death enemy' versus the 'incentive hypothesis' is the frequency distribution across the subcategories of 'stimulation'. It has already been pointed out that there are very few cases in which no stimulation at all is reported (see above: 3.4.). As would have been predicted by the 'death enemy hypothesis', there are even fewer cases in which

²For 'type of reason', multiple ratings were possible. In order to permit calculation of chi-square, in cases of multiple ratings one of the reason-categories was selected at random for each participant respectively.

stimulation takes exclusively the direction 'from film to book'. The 28 observed cases of stimulation 'from book to film' can be taken as evidence against the assumption implicit in the 'death enemy hypothesis' that interests in one medium are generally pursued at the expense of the other medium: This is clearly not the case, as the book can obviously act as an incentive towards watching the corresponding film. This does, however, not constitute evidence directly against the 'death enemy hypothesis', as the 'death enemy hypothesis' relates only to the direction 'from film to book'; hence it does not allow any predictions as to stimulation of interest in the other direction. Evidence against the 'death enemy hypothesis' is provided by the 25 cases in the last category 'both directions': Although it apparently happens only rarely that persons report being stimulated to read by watching a film and not also stimulated to watch films by reading, stimulation of interest in both directions turns out to be just as common as the promotion of interest exclusively from book to film. On the basis of these data the 'death enemy hypothesis' can not be maintained; instead the data favor the 'incentive hypothesis', which accounts equally for the high cell frequencies in both the categories 'from book to film' and 'both directions'.

Turning to type of reason given for interest in the other medium, participants in the category 'from book to film' name almost exclusively the wish to compare the handling of the plot in the film medium to the book. Only 3 out of 28 name the wish to live through the story again; the numbers in the other two cells are negligible. While 'comparison' is the reason most frequently given by participants in the category 'both directions' as well, a fair proportion of participants in this category also names the reasons 'reliving' and 'information'. The high proportion of namings of 'information' by persons within the category 'both directions' as opposed to persons in the category 'from book to film' is probably due to the opinion frequently verbalised in the course of the interviews, that the book handles a plot in far greater detail than the film. Hence the motivation to gain further information would be effective primarily when stimulation of interest takes the direction 'from film to book'. On this basis one can draw the tentative conclusion that motivations differ according to the direction of stimulation. Interest in the film on the basis of knowledge of the book seems to be motivated primarily by the wish to compare, while interest in the book on the basis of the film may be equally due to the wish to compare or the wish to gain further information. The motivation to live through the story again plays only a small role for participants in both categories.

Analysis of the cell frequencies in the cross-table for 'direction of stimulation' and 'numbers of reasons given' reveals that participants in the category 'both directions' on average not only give different kinds but also a greater number of reasons for their interest in the other medium. This may again be tentatively explained on the basis of the above conclusion: If interest in the film on the basis of the book on the one hand and interest in the book

on the basis of the film on the other hand are differently motivated, it would appear likely that persons in the category 'both directions' would give at least two reasons to account for their interests in the different directions respectively. This again would confirm the hypothesis that participants in the category 'both directions' are multiply motivated as opposed to participants in the category 'from book to film'.

On the basis of the data collected in the course of interviews employing the 'critical incident approach', the 'death enemy hypothesis' cannot be maintained on the individual level; instead the data favor the 'expanded version' of the 'incentive hypothesis': Books can be promoters of television and cinema; television and cinema can be promoters of books. This result at the same time also constitutes evidence against the assumption implicit in the 'death enemy hypothesis' that interest in the one medium is generally pursued at the expense of the other medium. Considering the very few cases in which no stimulation at all is reported, this is generally not the case. Putting the information on direction of stimulation in relation to information on the kinds as well as the number of reasons given, the data support the assumption that interest in the film on the basis of the book and interest in the book on the basis of the film are differently motivated respectively; hence on a formal level (number of reasons), persons in the category 'both directions' appear to be multiply motivated by comparison to persons in the category 'from book to film'; on the content level, the motivational structure of persons in the category 'both directions' seems to be more highly differentiated (type of reasons).

4. The Individual Level II: Reading Frequency as a Moderating Variable

4.1. Theoretical Background

Although the 'death enemy hypothesis' can be maintained neither on the systems nor on the individual level, it remains to be asked whether the alternative 'incentive hypothesis' is to be adopted for all types of readers and all types of literature equally, or whether moderating variables can be identified, limiting the applicability of the 'incentive hypothesis' to certain types of readers or certain types of books only. As some research on types of readers and reading motivation has already been done which can serve as a basis for the deduction of further differentiating hypotheses, we will here limit the search for potential moderating variables to the person-variable, i.e. types of readers, and leave aside the potential moderating role of types of literature.

One potential moderating variable has already been mentioned (see above: 1.): the recipient's attitude or motivation in turning to the print and audiovisual media respectively. Corresponding to the entertainment-oriented escapist function frequently attributed to the audiovisual media and the information- and self-knowledge-oriented function attributed to the print media, television in particular has been regarded as furthering a predominantly passive-receptive attitude, while reading has been taken to correspond to a more active, information-seeking attitude (cf. Bonfadelli & Saxer 1986; Franzmann 1989). Groeben & Scheele on the basis of their study on the psychology of non-reading (1975) arrive at a distinction between two types of reading interests: a stable and specific interest in reading on the one hand, and an unstable, non-specific reading interest on the other hand which were found to coincide with correspondingly different types of structures of leisure time activities. Persons with a stable and specific reading interest tended to pursue a greater variety of leisure time activities and in their choices were generally motivated by 'escapist' as well as 'emancipatory' reasons. Persons with instable, non-specific reading interests by contrast tended to pursue fewer leisure time activities and in their choices were generally motivated by 'escapist' rather than 'emancipatory' reasons. Thus, although persons of both types may equally be found to read or watch television during their free time, persons of the first type with a specific and stable reading motivation will generally read in addition to other kinds of leisure time activities, while persons of the second type with a more instable, non-specific motivation to read will tend to substitute reading and other kinds of leisure time activities such as watching television (compare also Gerlach et al. 1976).

If watching television or going to the cinema are substituted for reading by one group of readers, but not the other, it would appear likely that the type of reading motivation might act as a moderating variable in relation to the applicability of the 'incentive hypothesis': If reading and watching television can be substituted for each other, probably no or little stimulation of interest between the media will occur; if the different kinds of leisure time activities can not be substituted for each other, and a stable and specific interest in reading exists apart from other kinds of leisure time activities, stimulation of interest between the media will be more likely to occur. The 'incentive hypothesis' should thus be specified as follows taking into account the potential moderating effect of type of reading motivation: Cinema and television serve as promoters of reading to a greater extent for readers with a stable, specific motivation to read than for readers with an instable, non-specific motivation to read.

4.2. Methods and Procedure

To test this hypothesis, a questionnaire on interest in reading, television and cinema was designed; this questionnaire was filled in after conclusion of the 'critical incidents interview' by the same 66 subjects who participated in the study described above (see above: 3.).

The questionnaire contained questions on: leisure time activities on weekdays as well as weekends; frequency of film reception regardless of medium, average frequency and duration of television watching, average frequency of going to the cinema, directions of interest relating to types of television programs and types of films; average frequency and duration of reading (only books, no newspapers or magazines), reading interests. The two types of reading motivation were operationalized through average frequency of reading, taking a stable reading motivation to correspond to an average reading frequency of daily to several times a week, an unstable reading motivation to an average reading frequency of once a month or less.

Before participants began answering questions, it was again stressed that all replies were of equal interest, and that there were no 'right' or 'wrong' answers.

4.3. Results

Reading frequency being the variable of main interest, in a first step the frequency distribution of participants across the subcategories was determined (cf. table 12):

daily	15
several times per week	12
once a week	9
once a fortnight	9
once a month	11
less than once a month	10
approximately never	0

Table 12: Frequency Distribution across Categories of Reading Frequency

As the table shows, participants are approximately evenly distributed across the subcategories, leaving aside the last subcategory 'never'. None of the participants having replied 'never' is probably due to a social desirability effect as much as to an unavoidable bias in sample selection, non-readers not being interested in participating in a study of this kind.

For comparison with earlier studies, the following table gives the same frequency distribution in percent next to the frequencies in percent obtained by Schmidtchen (1974, 713) for the years 1967/68 and 1973/74 (cf. table 13):

	October 1967/ January 1968	October 1973/ Winter 1973/74	November 1989/ January 1990
daily	10	11	22,7
sev.times p.week	19	18	18,7
once a week	13	12	13,6
once a fortnight	8	6	13,6
once a month	8	8	16,7
less	10	12	15,2
none in last 12 mths.	32	33	0

Table 13: Frequency Distribution in Percent across Categories of Reading Frequency Comparing Results Obtained in this Study to Earlier Results Obtained by Schmidtchen (1974, 713)

Comparison again points to the above bias in sample selection, percentages differing most for the categories denoting highest and lowest frequencies respectively.

The hypothesis to be tested – that stimulation of interest is more likely for persons with a stable reading motivation, operationalized through reading frequency – is based on results of earlier studies to the effect that persons with a stable reading motivation also tend to pursue a greater variety of leisure time activities (cf. Groeben & Scheele 1975; Franzmann & Steinborn 1978, 183; Fritz & Suess 1985, 463f.; Leselandschaft Schweiz 1988, 40; for a summary see Groeben & Vorderer 1988, 95f.; see also above 4.1.). The following table gives the frequencies in percent for different kinds of leisure time activities according to reading frequency; for this purpose, subcategories 'daily', 'several times a week', and 'once a week' were concatenated into the category 'persons who read frequently', subcategories 'once a fortnight', 'once a month', and 'less' into the category 'persons who read less frequently' (cf. table 14).

percentage of persons who read	frequently	less frequently
radio	94,4%	90,0%
listening to records/tapes	88,9%	76,7%
hobbies (collecting etc.)	27,8%	23,3%
sports	36,1%	53,3%
going to concerts/theatre	22,2%	3,3%
drawing/painting/music	19,4%	30,0%
going for walks	77,8%	50,0%
watching television/cinema	97,2%	83,3%
reading newspapers/magazines	91,7%	83,3%
reading books	72,2%	26,7%
going out	52,8%	50,0%
further education	13,9%	23,3%
talking to others	97,2%	93,3%
relaxing, doing nothing	66,7%	56,7%

Table 14: Percentages of Persons in the Categories 'Read Frequently' and 'Read less Frequently' Pursuing the Given Leisure Time Activities at least once a Week

On the basis of the frequency data underlying the above percentages, the number of leisure time activities preferred by persons who read frequently as opposed to persons reading less frequently was determined, likewise the number of leisure time activities preferred by persons reading less frequently. The resulting value for chi-square is significant on the 5%-level ($X^2=4,57$, $df=1$, $p<0,05$), thus confirming the general results obtained in earlier studies (see above). More specifically, the result obtained by Groeben & Scheele (1975; among others) that persons who read frequently on average tend to watch television as much as persons reading less frequently can also be replicated: In fact, according to the above table, persons who read frequently watch television or go to the cinema even more often than persons reading less frequently.

In the above table, however, going to the cinema and watching television are drawn together into a single category. As the proponents of the 'death enemy hypothesis' have recently stressed in particular the role of television as an enemy of reading, we also tested for the significance of differences between categories of reading frequency across different frequencies of watching television. The resulting value for chi-square ($X^2=5,8$, $df=4$, $p=0,2$), however, is not significant, indicating that as predicted persons who read frequently do not differ from persons reading less frequently as to their frequency of television viewing.

In order to test the main hypothesis – that persons reading frequently will be more likely to report being interested in the film on the basis of the book and vice versa – it is necessary to bring together data relating to 'stimulation' from the interview and the data relating to reading frequency from the

questionnaire. For this purpose the category 'stimulation' was dichotomized into 'yes' and 'no'; as to reading frequency, the categories 'daily' and 'several times a week', 'once a week' and 'once a fortnight', 'once a month' and 'less' respectively were drawn together into the categories 'high', 'medium' and 'low frequency'. Drawing the categories together proved necessary since otherwise cell frequencies would have been too low to permit any further statistical analysis. The following cross-table gives the frequency distributions across cells as well as the resulting value for chi-square (cf. table 15):

reading frequency	stimulation	yes	no
high		23	3
medium		18	0
low		15	6

$$X^2 = 6,8 \quad df = 2 \quad p = 0,03$$

Table 15: Cross-Table of Frequencies for the Categories 'Reading Frequency' and 'Stimulation'

The value for chi-square turns out significant, indicating that participants do indeed differ as to reporting interest in a book on the basis of a film and vice versa according to reading frequency.

4.4. Discussion

The main hypothesis concerning the moderating effect of reading frequency as a variable influencing the applicability of the 'incentive hypothesis' being based upon the assumption that a stable reading motivation/high reading frequency generally coincides with a more active, emancipation-oriented structure of leisure time activities, this basic assumption was first tested by comparing persons who read frequently and persons who read less frequently as to their leisure time activities. Comparison of the average number of leisure time activities pursued by persons belonging to the two groups respectively reveals a difference significant on the 5%-level, indicating that the scope of activities pursued by persons who read frequently is indeed somewhat broader than for persons reading less frequently. Out of 14 different types of leisure time activities, only three are more popular with persons reading less frequently

than with persons reading frequently: sports, drawing/painting/music and continuing their education. Among the activities more popular with persons who read frequently, the difference to people reading less frequently is particularly pronounced as to going to the theatre and concerts, going for walks, and, of course, reading books. The difference is less pronounced but still quite considerable (10% or more) for listening to records/tapes, watching television/going to the cinema, reading newspapers or magazines and relaxing/doing nothing. As for listening to the radio, hobbies, going out with friends and talking to others, frequencies for the two groups differ by less than five percent.

While earlier studies such as the study by Groeben & Scheele (1975) arrived at the distinction between different structures of leisure time activities on the basis of a comparison between groups of readers vs. non-readers, in the present study it was only possible to compare persons reading frequently to persons reading less frequently, non-readers because of a selection bias not being included in the sample. If one takes into consideration that due to this bias in sample selection the results in this study are not as distinct as those of earlier studies, they can nevertheless count as a confirmation of earlier findings: Persons with a stable reading motivation who read frequently tend to be more active and on average pursue a greater number of leisure time activities than persons with an unstable reading motivation who read less frequently.

The conception of an active, emancipation-oriented structure of leisure time activities contains the further assumption that although persons with this structure pursue a wider range of activities in their spare time, the activities themselves are not necessarily different from the ones pursued by persons with a more passive structure. Hence it can be assumed that persons belonging to either group do not differ as to frequency of, for instance, watching television – watching television being the variable of choice, as proponents of the 'death enemy hypothesis' have stressed in particular the enemical effect of watching television on reading. The resulting value for chi-square not being significant, the hypothesis that persons reading frequently and persons reading less frequently do not differ as to frequency of watching television could be confirmed.

Finally, comparison of the cell frequencies for 'stimulation' ('yes' or 'no') across categories of reading frequency ('high', 'medium', 'low') shows that, while more persons in all categories report stimulation than would be expected according to chance, there is also a tendency for persons in the category 'low reading frequency' to report less stimulation than persons in the other categories; this corresponds to the result predicted on the basis of the limited version of the 'incentive hypothesis' that takes into account the potential moderating role of reading frequency. Closer analysis of the cell frequencies, however, suggests that the relationship between reading frequency and stimulation is not a linear one. Considering the absolute cell frequencies, persons with

the highest reading frequency also report the most stimulation; if one looks at the proportion of persons in the different categories of reading frequency who report stimulation, it is persons with a medium reading frequency who report the most stimulation, i.e. 100% as opposed to 88% in the category 'high reading frequency' and 71% in the category 'low reading frequency'. Thus, although the trend of the results can count as a confirmation of the limited version of the 'incentive hypothesis' insofar as persons in the category 'low reading frequency' report the least stimulation, a comparison of the proportion of persons in each category reporting stimulation points to a non-linear relationship that might be due to variables underlying reading frequency such as, for instance, a negative evaluation of the 'new' as the 'mass media' on the individual level leading to a rejection of television in particular among persons in the category 'high reading frequency', but not in the categories 'medium' and 'low reading frequency' (for other variables potentially influencing reading frequency and hence indirectly degree of stimulation see below: 5.).

There remains the question to what extent the above results can be generalized beyond the sample of persons who participated in this study. The issue of reading frequency can quite in general count as prone to social desirability effects – i.e. persons tend to report higher than actual reading frequencies (cf. Bamberger et al. 1977, 7; Steinberg 1970, 115); further, it was already pointed out above that the zero-value for the subcategory 'approximately never read books' as well as the high value of 22,7% in the category 'read books every day' do not agree with the percentages per category obtained in earlier studies (Schmidtchen 1974) and are probably due to social desirability effects as well as a bias in sample selection. As for the status of type of reading motivation/reading frequency as a variable moderating degree of stimulation by the different media, social desirability effects can, however, be neglected: If actual reading frequency is lower than reported, the relation between different groups of reading frequency still remains the same; hence the relationship between reading frequency and stimulation still holds. The bias in sample selection, does, however, limit the applicability of results to persons who do read, even if rarely, and persons with higher education (see above 3.4.); results cannot thus be readily generalized to either non-readers or, on average, persons without A-levels.

5. General Discussion

Returning to the initial question – are the 'new' audiovisual media the 'death enemy' of the 'old' print media? –, the results obtained in the studies described above can be summarized as follows: On the systems level, the

'death enemy hypothesis' must count as falsified – at least for that part of fiction described as bestsellers. A considerable number of books first appear on the seller-lists together with the corresponding film or television program, and a certain, though small, number of books follow the film onto the lists; both cases do per se constitute evidence against the 'death enemy hypothesis'. As for books already on the seller-lists when the film comes out, a closer (secondary statistical) analysis of the sales trends shows that on average sales quotes either remain stable or even go up during the initial period of simultaneous listing; once the film ranks begin to go down, book ranks either remain stable or also start to decrease and on average return to pre-film level approximately three months after the last appearance of the film on the seller-lists. A comparison of average book ranks for the three months preceding the listing of the film to average book ranks for the three months following the film shows that book ranks before and after the film do not differ significantly.

On the individual level, a first testing of the 'expanded' version of the 'incentive hypothesis' (which predicts a promoting relation between print and audiovisual media in either direction) on the basis of data gained through interviews employing the 'critical incident approach' shows the cell frequencies for the subcategories of 'stimulation' to be significantly higher than chance expectancy, with a large number of cases in both the subcategories 'from book to film only' and 'both directions' and only a very small number of cases in the subcategory 'from film to book only'. A comparison of persons in the categories 'from book to film only' and 'both directions' as to motivational structure on the basis of both type and number of reasons given for stimulation confirm the hypothesis that persons for whom stimulation occurs in both directions are more multiply motivated than persons for whom stimulation only takes the direction 'from film to book'. Taken together, these results constitute evidence against the 'death enemy' and in favour of the 'incentive hypothesis' in its 'strong' version stating that the audiovisual media not only do not constitute an impediment to reading but can actually promote use of the print media.

Earlier studies point to reading motivation/reading frequency as a variable to some extent moderating the applicability of the 'incentive hypothesis' in its above general form. On the basis of data obtained by questionnaire, it can be concluded that persons who read frequently differ from persons reading less frequently as to average number of leisure time activities pursued, though not necessarily as to type of activity such as watching television. This constitutes a confirmation of the results obtained by Groeben & Scheele (1975) as to a stable reading motivation/high reading frequency coinciding with a more active, a less stable reading motivation/lower frequency of reading coinciding with a more passive structure of leisure time activities. It can further be shown that type of reading motivation/reading frequency does to some extent act as a moderating variable in relation to stimulation of interest in the film occurring

on the basis of knowledge of the book and vice versa, persons in the category 'low reading frequency' reporting the least degree of stimulation and the highest degree of non-stimulation by comparison to persons in the categories 'medium' and 'high reading frequency'; the percentage of persons in the category 'low reading frequency' who report stimulation does, however, exceed chance expectancy. On the basis of these results, the 'incentive hypothesis' can be maintained in its general form, insofar as persons across all categories of reading frequency report a higher degree of stimulation than would be expected according to chance; it should, however, be further differentiated so as to take into account the mediating role of type of reading motivation/reading frequency (see below for the necessity of taking into account further variables underlying reading motivation/reading frequency).

There are, however, certain limitations to the generalisability of the above results. In the first place, as we have already pointed out (see above 4.4.), sample selection is strongly biased in favor of persons with a higher education and hence a higher reading frequency, the correlation between upper social class/higher education and reading frequency probably constituting one of the most frequently confirmed results in this area of research (cf. Franzmann 1989, 96; Langenbucher & Saxer 1989, 502; for a summary see Groeben & Vorderer 1988, 99ff.). Hence, this study has neglected the 'typical' non-reader and his threshold of fear which even stimulation of interest by a fascinating film or television program might not necessarily overcome in favor of the frequent or occasional reader who would be more likely to act upon his curiosity in what a particular film might be like as a book. Whether, and if so, under what conditions, the 'incentive hypothesis' can be applied so as to change the non- into the occasional reader, thus remains a question to be addressed by future research.

It has also been pointed out that the relationship between reading frequency and stimulation appears to be non-linear, the largest proportion of stimulation being reported by persons in the category 'medium reading frequency' (see above 4.4.), indicating the importance of the search for variables underlying reading motivation/reading frequency and hence indirectly influencing the degree of stimulation occurring between the media in either direction. Variables that might be of interest in this context are, for instance, type of media socialisation (cf. Langenbucher & Saxer 1989, 495ff.), dominant motivation of media use (cf. Groeben & Scheele 1975; Groeben & Vorderer 1988, 135ff.), perceived complexity (cf. Groeben & Vorderer 1988, 156ff.) of respective presentations of the same 'title' in the audiovisual as well as the print media, and negative evaluation of the audiovisual media on the individual level among a subgroup of persons who read frequently, possibly in turn depending on type of media socialisation.

Finally, test cases for analysis on the systems level as well as examples of 'critical incidents' reported in the interviews have mostly been limited to best-selling titles. The 'death enemy hypothesis' constituting merely one of the many manifestations of cultural pessimism, the opposition model of (literary) aesthetics and its distinction between 'high' and 'low' fiction and the corresponding reception attitudes (pleasure- and sensation-seeking versus critical and emancipation-oriented; cf. Schulte-Sasse 1976; Nusser 1982; for a summary see Groeben & Vorderer 1988, 104ff., 202ff.) constituting another, proponents of cultural pessimism in general might well object that results of this kind while refuting the 'death enemy hypothesis' nevertheless leave the core of the problem untouched: Best-sellers, it might be argued, are generally read in an uncritical manner. And of what use is reading if it is based on the same passive-receptive attitude as sitting in front of the television?

At this point it might indeed be worth asking the question: Of what use is reading? In attempting an answer one can focus either the medium or the recipient. As for the recipient, one might point to the numerous results describing the frequent reader as higher in verbal competence, better able to process and remember information regardless of the medium in which it is presented (cf. Franzmann 1989) and altogether more active than the non-reader (cf. Groeben & Scheele 1975; Franzmann 1989; Fritz & Suess 1985; 1986, 31ff.; also see above: 4.). It should, however, be kept in mind that reading frequency constitutes merely one predictor of, for instance, verbal ability or structure of leisure time activities, besides other predictors such as social class and type of education. To make the point in a somewhat simplifying manner: Does reading contribute towards making people more active, emancipation-oriented, verbally competent, etc., or is it that persons who are more active, verbally competent, etc. turn to reading more than persons approaching the media with a more passive-receptive attitude? A little of both, presumably; in any case, reading per se will not do anything towards changing reception attitude and motivational structure unless other conditions are also fulfilled. As for the medium, one can point to the possibilities of the book as opposed to those of the audiovisual media, the cognitive demands made upon the reader such as the necessity to concentrate, actively select, process, and integrate information, etc. (cf. Bonfadelli & Saxer 1986; Franzmann 1989; Noelle-Neumann 1988). But it is clearly not 'the book' to which all these wonderful qualities can be ascribed - otherwise the entire distinction between 'high' and 'low' fiction would lose its supposed point; moreover, the same study which stresses the merits of the book as opposed to television (Bonfadelli & Saxer 1986) says about the latter: Because television makes simultaneous use of different symbol systems, it demands from the viewer extensive and active efforts at the selection and integration of information - which makes one wonder at least temporarily why exactly it is that no one seems to cognitively profit from television viewing.

At this point at the latest one begins to suspect that maybe reading is valued so highly simply because the book in Germany still very much constitutes a status-symbol - as long as it does not belong to the class of best-sellers, of course (cf. Steinberg 1983a; 1983b; 1987). Once this superseded heritage of the 'Bildungsbürgertum' is left behind, however, one might alternatively arrive at the conclusion that it is not reading per se which constitutes a positive value, but the abilities found to correlate with frequent reading, such as the capacity to select among the different media the one(s) best suited to satisfy one's present demands - which may equally comprise the search for a particular piece of information, the stimulation into reflection, relaxation, or just plain escape from a bad day at work (cf. Groeben & Scheele 1975; Groeben & Vorderer 1988, 141ff.). This is not to say that we would advocate the furthering of a purely passive-receptive attitude or the satisfaction of an escapist motivation to the exclusion of all others, but to point out that it would be somewhat unrealistic to expect someone who is unused to reading to suddenly become preoccupied with 'Finnegan's Wake'. If the medium 'book' is to be made available to the majority of the public and reading to be a leisure time activity as common as sitting in front of the television, it is essential to first call into doubt distinctions such as that between 'high' and 'low' fiction or 'good' (actively-critical, emancipation-oriented) and 'bad' (passive-receptive, enjoyment-oriented) reception attitudes. Once this step has been taken, however, the potential function of bestsellers in contributing towards a more encompassing media-socialisation by uncovering hitherto unused reading-resources comes into view. Although on the basis of the above data no conclusions can yet be drawn as to the extent, weight, and substantiality of this function, the present paper will have answered its purpose if it can count as a first step of research in this direction.

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