Simultaneous Media Experience and Synesthesia

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The findings demonstrate that simultaneous media usage is a fact, undermining typical media measurements done in isolated environments that neglect the everyday patterns of media users. More importantly, the simultaneous media experience points to the concept of synesthesia as an experiential integrator of differing sensory fields. The experience of simultaneous media foreground/background relationship needs to be incorporated into the media planning and allocation mix if we are to actually address the consumers' media experience with multitasking.

INTRODUCTION

THE PRESENT RESEARCH STUDY of over 14,847 respondents was conducted in May 2005. It is number VI in BIGresearch's biannual research program. It is based on an initial May 2002 BIGresearch online pilot study of 1,883 participants. That pilot was followed by a fully executed investigation into simultaneous media usage and its effects with 7,800 respondents conducted in August 2002 and 12,322 respondents in March 2003. Also included in this study are the findings of SIMM II in February 2003, SIMM III in October 2003, SIMM IV in June 2004, and SIMM V in December 2004.

RATIONALE

Media technologies, even as early as print media but exponentially more so with the newer technologies, have begun to break down Euclidean space. In *reading* about world events, we are aware of such events in a significant fashion. We know what they mean, and we understand them from the perspectives of others and are capable of filling either imaginatively or by memory the empty signs. It is our body positionality, our imaginations, memories—indeed our horizons—that offer perceptual content. With *radio* our perceptual presence thickens; we hear one's laughter and—synesthetically—hear her smile and her expressive face.

If we extend the technical media toward film, the perceptual presence of the other thickens even more. More importantly, in *film* I am bodily located as "here" in contrast to another's visible body "there." Indeed, the film medium allows me to see events, vistas, facades of buildings from his/her perspective. I can fill in his/her body position and hence see the way he/she sees. In addition, the others who confront him/her also offer positions, each representing, positioning, and differentiating from one another. I can attune to their body performances and can enter the concrete vectors of their gesture, extended and varied by speech. I can see the angry, pensive, cold expressions across their faces and hear these expressions in their voices and total body comportments.

The new communication technologies constitute a recoupling process that transforms a reading culture into an audiovisual kinetic culture. In essence, the interplay of images, sounds, and graphics become central to a cultural system of self-reproduction. The new communication technologies transform modern three-dimensional space and sequential time, space of locations and distances, into *presences* without *distances*; into "take-for-granted's" with which we interact "right at home." Multiple perspectives fuse inextricable with our own. The space of concentrated metropolitan places of business and commerce, of trade and transpor-

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tation, is dispersed and yet made more accessible. The times are at an instant from everywhere. *Space, time, and motion have assumed radical transformation.*

One of the by-products of this radical transformation is a fragmented media environment characterized by an exploding number of media alternatives vying for people's time. Unfortunately, people still have only 24 hours in a day, creating a need to simultaneously use various media forms to keep pace with events around them. As we know, people often talk on the cell phone while listening to the radio or viewing TV. Therefore, simultaneous media usage and multitasking are not new to society, but they appear to be new to media researchers and planners.

The growth of simultaneous media usage should have a direct impact on the allocation of advertiser's media dollars. Simultaneous media usage suggest that (a) one media becomes background or (b) both pass one through the other or (c) there is dissonance. Each option creates a different metric of receptivity to programming and advertising, requiring media allocation to be thought through based on some of the following issues:

- Which media create optimal synaesthesia experience?
- Which media have the most influence in simultaneous use on concrete behavior?
- Which media command attention during simultaneous usage?

BACKGROUND ON THE MEDIA CONSUMPTION MODEL

A detailed research model was presented at the 2004 ESOMAR/ARF Worldwide Audience Measure (WAM) Conference and subsequently published in *Excellence in International Research 2005*. Based on a database of 60,000 respondents, BIGresearch presented its major *applied* research findings and model for media planning at the Advertising Research Foundation (ARF) Conference, April 2005. Recently, BIGresearch demonstrated how it could populate the 2004 model (ESOMAR/ARF WAM 2004) at the WAM June 2005 conference in Montreal (see Figure 1).

At the 2004 ESOMAR WAM Conference, Schultz and Pilotta (2005) hypothesized that substantial changes had recently occurred in the advertising landscape and that a new model of how media advertising "works" was needed.

They posited that media advertising impact could likely be explained by measuring audience media consumption rather than through the traditional advertising message distribution model. Their approach was based on three core issues:

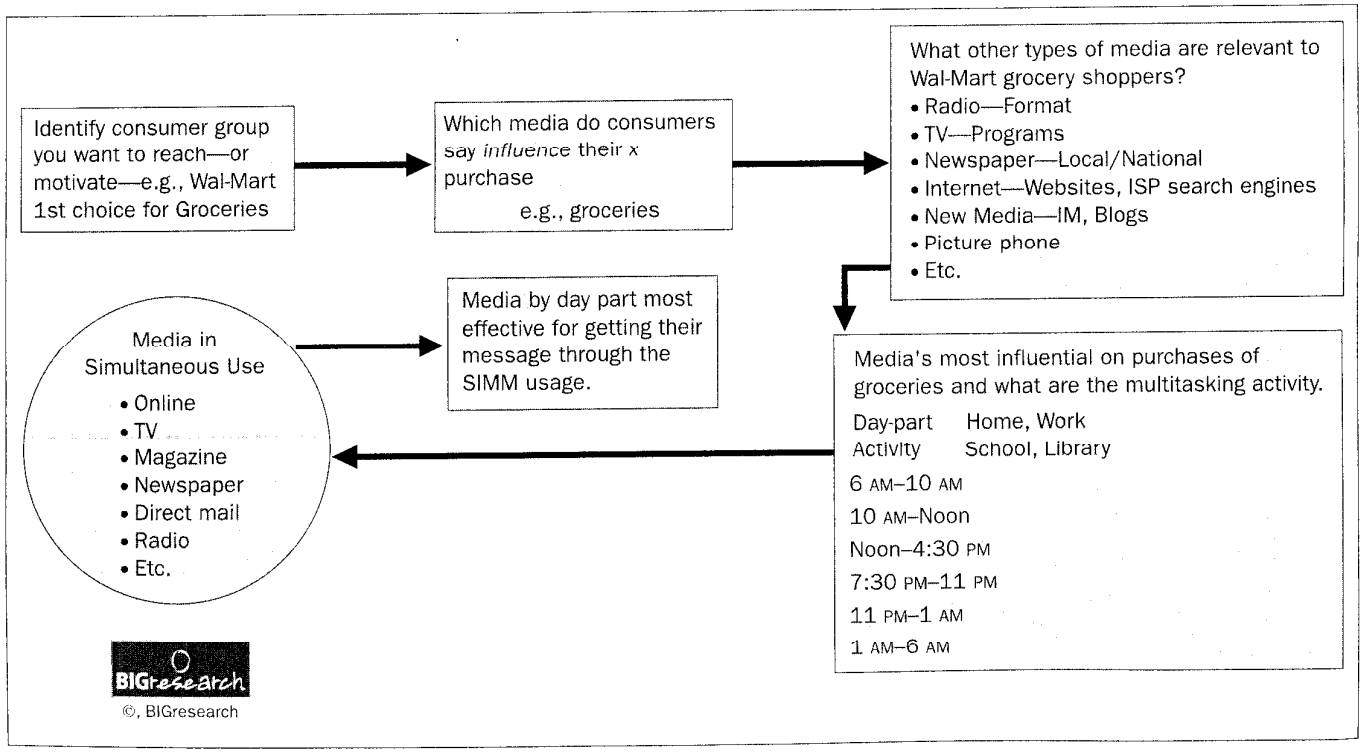

Figure 1 Flow Chart from Media Planning—Presented at ARF 2005.

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the will of the advertiser. Further, cognitive concepts raise major questions about traditional advertising research techniques using consumer questionnaires about products, services, and advertising. All these techniques assume consumer knowledge is stored in conscious memory (Zaltman, 2003), which is likely incorrect. Tradi-

base for the media consumption model.

In the SIMM studies, consumers also report when and what media forms are used simultaneously and in what combination, i.e., when television and online were used together, and which media have most impact on purchase decisions by merchandise category.

1. the advertising industry's reliance on derived assumptions of how media advertising "works" rather than on provable measures
2. their marketplace observations of available new data sources and measurement techniques
3. the advertising industry's reliance on outbound, efficiency-oriented message distribution systems to define advertising impacts and effects

All, they suggested need to be rethought.

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THREE CRITICAL CHANGES DRIVE MEDIA ADVERTISING UNDERSTANDING

Simultaneous media consumption

Advertisers have always known consumers multitask with media, i.e., flipping through a newspaper while in front of the TV, listening to the radio while thumbing through a magazine, and so on. Yet, these consumer media behaviors have received little advertiser or researcher attention because the historic focus has been on distributing media advertising, not on understanding its impacts or effects.

Starting in 2003, BIGresearch began studying simultaneous media consumption (SIMM Studies). Data came from consumer-reported, online-gathered research about consumer media usage along with consumer-reported purchase preferences and behaviors. Conducted twice yearly, each time with a statistically projectable national consumer base, the research is delineated on the basis of the 14 age/sex cells found in the 2000 U.S. Census. The research, now in its sixth iteration, has found widespread consumer simultaneous media usage, usually in the range of 40 to 65 percent, depending on the specific media combinations. Thus, simultaneous media usage/consumption occurs fairly often in today's marketplace. This evidence of simultaneous media consumption is likely to change many of the traditional rules of media analysis that have been in place for years.

A cognitive model of consumer behavior

Great strides have been made in understanding how the human brain "works." Using neural network research, brain scans, and magnetic resonance imaging, researchers have developed new understandings of consumer information processing. Now commonly referred to as "cognitive psychology" (Zaltman, 2003), these findings challenge traditional behaviorist views. Rather than the behaviorist "teaching and learning" model (Colley, 1961; Lavidge and Steiner, 1961), cognitive psychologists suggest advertising information is acquired continuously from multiple sources, stored often subconsciously in the brain, and then assessed and assembled on demand by the individual.

Clearly, today consumers are active media seekers, choosing what forms of media they prefer, when, and how often. They are not passive receivers who can be moved through some type of hierarchy at the will of the advertiser. Further, cognitive concepts raise major questions about traditional advertising research techniques using consumer questionnaires about products, services, and advertising. All these techniques assume consumer knowledge is stored in conscious memory (Zaltman, 2003), which is likely incorrect. Traditional media advertising research therefore may not provide very accurate methods of explaining how media advertising exposures actually "work" or how media itself is consumed.

Synergy

Our discussion of synesthesis will amplify our previous discussion on the issue (Schultz and Pilotta, 2005).

1. *The Study: Overview.* The model is based on the media consumer, not the media advertiser. The audience determines media exposure, not the media delivery system. The consumer selects the media form(s) they will access and use. They determine the amount of time they will spend. Thus, consumers define the number of advertising messages to which they will be exposed, not the advertiser, no matter how much money he or she spends or how pervasive the messages might be.

SIMM studies provide consumer-reported estimates of experiential time spent (not clock time) with each of 32 separate media forms. Media exposure by media form and individual provide the base for the media consumption model. In the SIMM studies, consumers also report when and what media forms are used simultaneously and in what combination, i.e., when television and online were used together, and which media have most impact on purchase decisions by merchandise category.

When media advertising forms are used simultaneously, one is generally dominant, i.e., the person is watching television, but also flipping through a magazine. We have termed these media exposures "foreground" (dominant) and "background" (secondary). Importantly, consumers can shift their focus from one medium to the other and then back in an instant. This ability to shift from one media form to another raises the question of whether each medium processed sequentially or in parallel (Bluedorn et al., 1992).

Clearly, not all consumers process information of access or use media in the same way (Blumler, 1979; Buchholz and Smith, 1991). Thus, there likely is no "mass media audience" per se. There are simply large numbers of people doing many of the same general things, perhaps at the same time, but in radically different ways. Therefore, media distribution models cannot likely explain how media advertising "works," particularly in a simultaneous media usage environment. Thus we argue the media form the consumer selects provides a better explanation.

In the process of media consumption and the attendant advertising being delivered through those media, the audience is impacted by synergy between media forms. This synergy occurs when the same message appears in multiple media forms whether they are presented sequentially, i.e., one after the other, or in parallel, i.e., at the same time. Naik and Raman (2003) demonstrate that this synergy can either enhance or detract from the impact that any one of the individual media forms has on the media consumer.

2. *Select Significant Findings from Spring 2005 SIMM VI.* Table 1 of the SIMM VI findings demonstrates the preponderance of SIMM participation both as a regular and occasional activity—regularly means routinely, as a set pattern or 75 percent of one's time; occasionally means no set pattern, as mood suits or 35 percent of one's time. As the data show, simultaneous media are not only a fact but a pervasive activity. However, when the audience is not engaged in simultaneous media, they are multitasking while engaging in media.

TABLE 1
Simultaneous Media Usage

	Online	Newspaper	Magazines	Radio	TV	Mail
Radio[a]						
R	21.0%	14.3%	13.1%		3.8%	12.9%
O	38.4%	31.6%	34.9%		14.2%	49.9%
TV						
R	37.7%	23.6%	18.9%	8.2%		21.3%
O	29.4%	38.3%	43.0%	22.2%		49.9%
Magazines						
R	6.8%			8.8%	9.6%	
O	23.9%			35.4%	14.6%	
Newspaper						
R	9.3%			12.4%	16.9%	
O	19.1%			36.9%	46.8%	
Mail						
R	19.9%			11.2%	14.6%	
O	28.3%			40.6%	49.6%	
Online						
R		8.3%	6.7%	19.4%	28.6%	11.1%
O		17.2%	20.7%	35.8%	34.6%	30.8%
Engaged in other activities						
R	24.4%	8.9%	7.9%	24.5%	18.3%	9.1%
O	46.3%	32.1%	32.7%	39.4%	49.9%	40.2%

Source: © BIGresearch SIMM VI, May 2005, *n* = 14,847.
[a]R = Regularly, O = Occasionally.

While engaged in simultaneous media usage, 48.9 percent of respondents indicated they pay attention to one medium more than other(s) and 32.1 percent said they attend to each media form equally at the same time. Nineteen percent (19 percent) say they do not engage in simultaneous media usage. These findings point to the experience of synesthesia as an operative principle in our media environment.

The experience of simultaneous media is a fact but it is not an attention problem. Rather it is a shift in the logic of cultural perception and attunement from successive experience to simultaneity and synesthesia of media that, in turn, restructures attention. The experience of simultaneity as you can see from the data, is an increasingly regular experience of media.

3. *The Synesthetic Experience.* The simultaneity of the media experience affirms in the McLuhanesque manner (McLuhan

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1967) that a generation raised on newspapers would develop minds that work linearly, like print, and would engage in activities one at a time—read a book, then talk on the phone, then eat dinner. The TV babies, however, would experience the world nonlinearly—their minds would work like television, a program, an advertisement, a change of channels, etc. They would read a book, talk on the phone, watch television, read a magazine, go online not in a discrete sequence but all at the same time, one experience would interpenetrate the other.

Following this line of thought, it would seem that "TV babies" could make sense of this seemingly disconnected flow of sights and sounds. Such experience creates the necessity for looking at the synergistic assemblage of electronic combination, which in turn creates a different form of receptivity.

In television, images are projected at you. You and the screen. The images wrap around you. You are the vanishing point. Commercials have no time for the elongated narrative of print technology. Television completes the cycle of the human sensorium with the compressing ear and moving eye. We have abolished writing, with the specialized acoustic—visual. In television, there occurs an extension of the sense of active, exploratory touch that involves all of the senses simultaneously, rather than that of sight alone (McLuhan, 1967, p. 125).

As McLuhan has noted, "Most often the few seconds sandwiched between the hours of viewing the 'commercial' reflect a truer understanding of the medium" (1967, p. 125). The narrative is subordinate to dance in many commercials (product brand drink, Coke, Pepsi). Unfortunately, writing was prescribed to be a derivative of speech, and television continues to be presupposed a derivative of print. However, it is not and neither are the new electronic media.

One thing has been clear since Pittman's (in McGrath, 1996) formal innovation of MTV, television is not necessarily watched attentively, as one reads a book, magazine, etc. Our multimedia style and convergence via simultaneous media use is a complex form of mediation and technology that interpenetrates and creates a new style of receptivity and a new form of expression, which requires a new level of understanding of perception. The simple identity of forms such as narrative, advertisement, and news, and institutional opposition such as radio and television programs and commercials are shattered, combined, and multiplied to the extent that singular distinction or binary opposition are rendered multiple and irrelevant. This offers an opportunity to rethink broadcasting not only in terms of narrow casting, but to reconsider broadcast and receptivity.

The fragmented media environment in which forms of media vie for people's attention is integrated into people's lives as they multitask, taking in several media streams at the same time. Our research has verified the experience of synesthesia as an aspect of human embodiment and perception that makes possible the integration of media experience and simultaneous negotiation/absorption of media advertising.

4. *The Phenomena of Synesthesia.* The ability for sensual modality, vision to point beyond itself and reveal another, modality taste and the apparent integration of other sensual modalities both physical and psychical, is an aspect of embodied consciousness or cognition (Zaltman, 2003). This is often neglected or disregarded but is fundamental to communication and is a vital aspect of advertising even if it is unknowingly. Synesthesia is the crossing, overlapping, or integrating of sense experience. Most media are restricted to empirical presentation of sights and sounds, but consumers experience these sights and sounds as visual, aural, haptic, gustatory, olfactory, and meaningful.

There is a tendency in contemporary research to consider touch, taste, sight, sound, and smell as individual senses relating to specific sense organs that are unified by the brain. While the five categories are useful, they lead us away from the recognition that senses are also experienced as interconnected and integrated (Merleau-Ponty, 1989). Richard Cytowic (1989) and others in neuroscience (D'Amasio, 1999; Zaltman, 2003) suggest we are all synesthetic, even if only a few people are consciously aware of it. New findings in cognitive psychology note that neural networks operate often at an unconscious level (D'Amasio, 1999); therefore, synesthesia is more like breathing, an involuntary activity.

This involuntary activity is important to understand because the integration of sensual communication is significant. For instance, our mouth waters when we see/hear a sizzling steak advertisement. While this may be a good example of stimulus-

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response, we have noted elsewhere that perceptual activity and consumer behavior is not causal as much as it is *significantly* based on a fusion of horizons of expectation and foreground and background relationships (Schultz and Pilotta, 2005, p. 594). We cannot predict consumer activity based on an isolated stimulus.

The synesthetic experience is a leading clue toward understanding the combination and synergistic significance of advertising. Even the most rudimentary sensual experience we learn from Gestalt psychology is at least a figure perceived against a background. The loud sounds and quick cut images of a music video, for example, are seen and heard against the relative quiet and technical visibility of a network television newscast. On that basis, perception is as an opening of a field, yielding a constellation of meaning and experience. Perception is neither constituted nor experienced as a sum of discrete senses, rather "all of our senses are modalities of perceptions and as such are cooperative and inter-communicable" (Sobchack, 1992, p. 76). As a perceptive body my sense of sight is pervaded by my sense of touch. Likewise, I can see texture, and smell is cooperative with taste and taste with sight. Even when my perception seems most focused and localized in a single of its modalities, when it seems dominated and directed by a single sense, all of its other modalities form the ground or a visual field of that focus and are in harmony or dissonance with it (Sobchack, 1992, p. 77).

The phenomena of perception can also be deployed as phenomena of expression. While vision is perceptual and extends across the sensual perceptual field, visual experience can be expressed in words, sounds, imagination, and other significant gestures. In fact this is the basis for metaphor analysis as presented in Zaltman's work (2003).

5. *SIMM Tasking and Synesthesia.* When I watch television, I am generally also listening to and hearing television. To enjoy watching is to take it in, to attune to it, to move to its rhythms. Not to enjoy is to perceive the TV presentation as distracting or boring. Today's media encourages grazing, surfing, flipping, a perpetual flow of sight and sounds; a pastiche receptivity that mitigates against any form of tradition and not so traditional media engagement studies, particularly those at the purely cognitive level. Radio, in fact, is more geared to listening rather than attentive audiences whose attention is dispersed. While television can use and be coupled with other media, the radio is well suited to the inattentive-attention of our day because it relies on the audible more than the visual.

Popular music is consciously devised to be heard (background) as well as listened to as foreground. It is less clear that television is programmed this way. While advertisers want you to see their commercials, we know people often use television as background. The activity of watching television is a participation engagement, but it is not necessarily a focused experience. We do not have to look at TV to watch it.

Unfortunately, sound is often disregarded in TV studies. However, it is better suited than sight to communicate to a dispersed audience because such is experienced in ebbing flows that allow for attentive—in attention (Williams, 2003). The simultaneous media experience is a nonnarrative form with no beginning, middle, or end, with one media flowing through the other—synesthesia.

The simultaneous experience of media is a rejection of McLuhan's (1964, 1967) rear-view mirror thesis. Rather than looking back to the book, film, or theater as a prototype of media, a tele-aural-visual-tactile environment has emerged as a new way of considering presentation and receptivity to advertising.

I can focus my eyes on the screen or the keyboard. I can "see" the glimmer of light of the computer monitor in the "corner of my eye," while I look for the correct keys to punch on the keyboard. I can also "see" in my imagination and memory the TV set behind me. However, my visual attention must focus on one or the other. Moreover, the bias of our time treats sight physiologically. The visual, in the experience of memory and imagination, is rarely considered when discussing vision. Vision, when seen this way, is our focus, opaque, linear, segmented, exclusive, spatial (I see this or that), and temporal (I see this and then that) (Williams, 2003).

Sound, on the other hand, is pervasive. Sound fills and colors space. It is moods and effect; it is intensity. It creates the depth, spatial and temporal experience (Pilotta and Mickunas, 1990). This sound

is dispersed, transparent, all pervasive, and inclusive. Sound facilitates the attentive inattention of audiences whose attention in divided and dispersed among various acts as it unifies the field. However, audio is a second-class citizen in television. Within the new media environment, the logic of radio, television, broadcasting, cable casting, and advertising all need to be rethought in terms of a tele-audio-video-tactile-advertising form. The institutional boundaries must be deconstructed. Advertising works best with intensity, tone, and mood. The repetition and stability at the audio level inform the visual. The audio will carry the visual and sustain the new environment. Advertising requires a cross-sensual intercommunication of media to be effective in SIMM-tasking environment.

Media images create identities. As such, they are an access to our sense of what things are. The image of the business person, sport celebrity, etc. manifests a concept or even a preconception of these things. Through direction, unity, order, irreducibility, and recognizable limits, the image brings to light the illusion of fixity and permanence. The image is the polar or complement to the audio. Sound is more like experience, memory, and feeling. Sound is a mode of daily talk, connected by chance, circumstance, environment, and mood. Therein lies the power of the spoken word and its influence as an advertising medium. The sights and sounds of advertisement are a style of awareness, a way of perceiving things, a mood, an attitude, association, and imagination. Sounds establish tonic rhythm of visual presentation. The visual presentation reflects the tones. This synethestic experience as aesthetic background and foreground component are copresent in every simultaneous experience creating either ambiguity or intensification of media.

6. *What is to be done?* Visual and aural communications, as in radio, television, internet, cell phone, ipods, have a synesthetic foundation. The visual image, for example, is synesthetic. Knowing this allows media designers to produce and planners to plan with multisensual ends in mind.

All of the senses including the physical, sight, sound, taste, touch, smell, and psychical, e.g., intuition, memory, imagination, etc. are aspects of a complex sense constellation. Therefore for a media planner, sight is not an end; that is, seeing a commercial is not the goal. Rather, sight is a means to engage the activity of perception. It may well be the case that sense of belonging is the consumer's desire, and the visual image of people socializing with a Coke may be the key to the desired outcome.

Media experience needs to be studied, created, and planned as an integration of simultaneous streams that do not compete for attention but media experiences are synergized by attention. One is not exposed but attends to media with a shifting span of attention and focus. This means that foreground and background experience be considered together. Indeed, the model of the "viewer" or "listener" is for all intents and purposes outdated as most media consumption happens as one is involved in a variety of activities (see Table 2).

It is the consumer's perception, often "unconscious" and synesthetic, that is of importance for advertisers and planners if they want to know how advertising communicates. The real, multitask person's perception is nonlinear and selective. Selection is based on significance within the foreground-background attention and scheme of experience. Combinations of media and synesthetic synergy enhance the scheme.

Understanding synesthesia helps to understand how a person is able to shift

TABLE 2
Simultaneous Consumption

	Foreground	Background
Online-Watch TV	25.7	21.8
Mail—Watch TV	23.7	19.4
Newspaper—Watch TV	22.4	16.1
Online—Listen to the Radio	18.3	16.1
Magazines—Watch TV	18.8	14.2
Mail—Listen to the Radio	15.7	14.0
Radio—Read the Newspaper	14.3	14.0
Online—Read the Mail	13.9	10.2
Magazines—Listen to the Radio	12.8	11.0
Online—Read the Newspaper	7.2	5.7
Radio—Watch TV	7.7	4.0
Online—Read Magazines	6.2	5.0

Source: © BIGresearch, SIMM Foreground/Background combination by percent.

from media to media, background to foreground, and integrate the potential fragmentation of attention in which media/message impact would be diluted. The synesthetic synergy, however, explains how simultaneous media usage may reinforce messages to create a response larger than the source of the messages themselves.

Given that each media in institutional research is treated in isolation, the concepts of exposure, frequency, duplication, and reach must be eschewed once and for all. As exposure presupposes exclusivity, frequency presupposes discrete sensory participation, duplication presupposes multimedia operate in succession, reach presupposes unduplicated audience, and accumulation presupposes by aggregated media forms. Our studies have shown that media are received simultaneously and synesthetically during intermittent activities of daily life. Therefore, we need to examine not only media flow in terms of the simultaneous foreground/background but also social behavioral flow.

To look at media as a simultaneous and synesthetic environment, we must understand that social flow or social mobility is compromised of intermittent activities and experiences requiring that we as researchers attend to social practices/behavior requiring a sociological/communication analysis rather than diffusion and/or psychographics analysis. In broad strokes, we need to examine the complex interworking of simultaneous media's mediation as consumption. JAR

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