

# CONSUMER SKEPTICISM TOWARD NEW PRODUCTS

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## ABSTRACT -

The present article introduces the concept of consumer skepticism toward new products (CSTNP) as a more comprehensive notion of consumer skepticism than skepticism toward advertising. CSTNP is conceptualized and defined in relation to related constructs (doubt, disbelief, and distrust). The underlying structure of CSTNP is empirically examined and several antecedents and consequences of CSTNP are proposed and tested.

## CONSUMER SKEPTICISM TOWARD NEW PRODUCTS

Parallel to the development of companies' orientation to the marketplace, from the production concept to the concept of one-to-one marketing, consumers' position toward new products and marketing has changed from that of a gullible, all-accepting customer into a self-aware, highly critical individual. Over time, consumers have developed personal knowledge, called 'persuasion knowledge' (Friestad and Wright 1994), about the tactics marketers use to persuade them to buy their products. As a result, consumers are less likely to offer unquestioning trust to suppliers; they are skeptical:

"New consumers tend to be much less trusting than Old ones. Since they are more suspicious of authority in general, simply being told that something is the case fails to impress them. They want to be given concrete evidence that things are as they are claimed to be before judging them either credible or unreliable. Old consumers, by contrast, tend to require a less rigorous standard of proof before accepting such claims" (Lewis and Bridger 2001, p. 42).

According to public policy makers and consumer interest groups who are concerned with the potential to mislead consumers, skepticism is a necessary, beneficial, and healthy skill that protects consumers from marketers' deceit and enables them to make sound and objective product evaluations (Koslow 2000). Therefore, skepticism should be enhanced through education and training (Mohr, Eroglu, and Scholder Ellen 1998).

In the eyes of suppliers and marketers, however, consumer skepticism is both a curse and a blessing. The marketplace cannot cope with skepticism, but it cannot do without it either (Obermiller and Spangenberg 1998). Marketing practices, often characterized by exaggeration and bias, rely on some level of consumer skepticism. Consumers are expected to be capable of distilling the true message out of ads and commercials; they are expected to know what to take literally and what not. At the same time, to the extent that consumers are skeptical of the truthfulness of marketing communications and product offerings, their information value is diminished and the costs of communicating the benefits of new products to consumers are wasted (Mohr et al. 1998; Obermiller and Spangenberg 1998). Furthermore, skepticism may lead consumers to become suspicious of honest marketing practices (Koslow 2000) and may lead them to ignore or reject truly beneficial "deals" (Mohr et al. 1998). Clearly, such a situation would be in nobody's interest. A desired state for consumers appears to be one in which they are capable of deciding when there is a need to be skeptical (i.e. when they run the risk of being misled or deceived) and when there is no such need (i.e. in situations where being skeptical would be counterproductive).

The aforementioned considerations have stimulated research into consumer skepticism. Strikingly, practically all the studies carried out thus far are characterized by an exclusive focus on consumer skepticism toward (some form of) advertising. Investigated objects of consumer skepticism are seals of approval information in advertising (Beltramini and Stafford 1993), environmental claims in marketing communications (Mohr et al. 1998), advertising claims about different durables and services (Ford, Smith, and Swasy 1990), pizza advertising (Koslow 2000), pharmaceutical advertising (Koslow and Beltramini 2001), TV advertising (Boush, Friestad, and Rose 1994), lawnmower advertising (Hardesty, Carlson, and Bearden 2002), and advertising in general (Mangleburg and

Bristol 1998; Obermiller and Spangenberg 1998, 2000). Only one study was found that takes a broader perspective than ad skepticism, namely that of Bronn and Vrioni (2001) who discuss consumer skepticism toward cause-related marketing campaigns.

In the present study, consumer skepticism toward new products (CSTNP) is examined. We will particularly focus on the definition and the construction of a measurement instrument. There are several reasons for doing so. Firstly, consumer skepticism toward advertising represents too limited a view of consumer skepticism. Clearly, consumer skepticism may be directed towards many other aspects of product offerings such as quality, environmental hazard, novelty, advantage, price fairness, warranty, and manufacturer motives. Secondly, consumer skepticism appears to be a particularly relevant construct in the case of new, unfamiliar products, as uncertainty and risk are likely to be high and as it is believed that most consumers are intrinsically wary of new things (Moston 1996; Rackham 1998). Finally, research into CSTNP is of high practical relevance. Understanding why and under which conditions people are skeptical about new products will (1) enable marketers and product developers to anticipate consumer skepticism and it will provide them with directives as to how to reduce skepticism and accelerate adoption and diffusion, (2) enable public policy makers and consumer interest groups to educate consumers to become productive rather than unproductive skeptics.

### DEFINING CONSUMER SKEPTICISM TOWARD NEW PRODUCTS

Research into consumer skepticism has suffered from the lack of a clear and consistent definition of consumer skepticism. Reported studies are largely incomparable and have hardly contributed to coherent and progressing theorizing, due to the use of different definitions. To mention a few, skepticism (toward advertising) has been defined either as a mistrustful predisposition (Boush, et al. 1994) or a negatively valenced attitude (Mangleburg and Bristol 1998) toward motives of and claims by advertisers, as a general tendency toward disbelief of advertising claims (Hardesty et al. 2002; Obermiller and Spangenberg 1998, 2000), as consumers' distrust or disbelief of (the sincerity of) marketer actions (Forehand and Grier 2002), or as a tendency to question the truth of advertising claims (Koslow 2000). What these definitions have in common is that consumer skepticism not only implies that someone is in doubt about (marketing) information, but also that that person tends to believe that the information is untrue rather than true. A negative bias thus seems to exist. Although in principle, upon the exposure to supporting evidence, the skeptic can still be persuaded to accept the information as true, deep inside (s)he does not expect that to happen.

Reading these definitions, at least two questions spring to mind: (1) Is consumer skepticism a predisposition or a temporary, context-induced state of mind? and (2) What is the difference between consumer skepticism, doubt, disbelief, and distrust? [Distrust is synonymous with another commonly used term, suspicion.]

In answer to the first question, consumer skepticism is regarded as an inclination that can either be predisposed (trait) or context-induced (state). The distinction between trait and state skepticism is also made by Forehand and Grier (2002) who argue that consumers vary in their predisposition toward skepticism, but that skepticism is also produced by situational variables that induce a (temporary) state of skepticism. Thus, at the more general level, someone may possess a skeptical personality (trait). Whatever the nature of the information, a skeptical person will always tend to question it. At a more specific level, skepticism may especially be triggered when the subject is confronted with specific (e.g. marketing) stimuli. Someone may become more skeptical when, for example, dealing with new products, advertising, or salespeople. Consumer skepticism towards new products (CSTNP) is thus considered a form of state skepticism that occurs when someone (not necessarily having a more general skeptical predisposition, although a strong positive relationship can be expected) is occasionally confronted with a new product about which (s)he is skeptical. Obviously, CSTNP will be set off by a number of situational variables and product characteristics such as product novelty ("Is it truly new?"), product performance ("Will it really do what it is supposed to?"), durability ("Will it truly work properly for at least 5 years?"), or value for money ("Is this a fair price?").

With respect to the second question, distinguishing skepticism from doubt, disbelief, and distrust may seem a semantic issue only, but it is not. Notwithstanding their apparent semantic similarity, these constructs are conceptually different. The difference between doubt and disbelief constitutes the difference between knowing and believing. Lack of knowledge is related to insufficient information which makes it difficult or impossible to

make up your mind about something. As such, doubt is considered to be an antecedent of attitude strength. Not believing something does not imply that there is a lack of information, but rather that there is a lack of conviction that the information is true or reliable. Thus, disbelief has to do with the credibility rather than the sufficiency of information. Disbelief and skepticism differ from each other in that disbelief is more definitive than skepticism. Somebody who disbelieves information has accepted it as not true. In contrast, someone who is skeptical about something (e.g. product quality, ease of use, etc.) is still in the process of deciding whether to accept it as true or not. Koslow (2000) makes a similar distinction between skepticism and disbelief and offers supporting evidence showing that people may question information and still believe it tentatively. Finally, distrust is equal to what others have termed cynicism, which has been defined as "the suspicion of other people's motives, faithfulness, and goodwill" (Kanter and Mervis cited in Obermiller and Spangenberg 1998). Obviously, distrust is a relevant construct for marketers, but it has to be conceptually separated from skepticism. Whereas cynicism (distrust) refers to an evaluation of something or someone as being (dis)honest or (un)reliable, skepticism refers to an evaluation of the extent to which something is true. Kanter and Mirvis (cited in Mohr et al. 1998, p.33) have described the difference between skepticism and cynicism as follows: "Skeptics doubt the substance of communications; cynics not only doubt what is said but the motives for saying it".

In this study, consumer skepticism toward new products is defined as a consumer's tendency to question any aspect of a new product offering, in any form it may appear (e.g. facts, inferences, or claims). This questioning tendency is a context-induced state and will be stronger for skeptical people (being part of their skeptical nature). CSTNP is biased towards disbelieving, but this bias may be overcome if the evidence is convincing. In other words, consumer skepticism is pre-attitudinal and it can, theoretically, be decomposed to the level of attributes of the new product (consumers may question any aspect of a product offering).

From a practical point of view, it is neither possible nor desirable to include every product aspect in a further conceptualization of CSTNP. For new products we propose the following set of relevant "targets" of CSTNP: product quality (Garvin 1987; Brucks, Zeithaml and Naylor 2000), including product performance, ease of use, durability, serviceability, and prestige, compatibility and relative advantage (Rogers, 1995), novelty (Storey and Easingwood, 1998), value for money, and credibility of the (new) product information upon introduction.

#### ANTECEDENTS AND CONSEQUENCES OF CSTNP

A number of antecedents of skepticism toward advertising have been identified in the literature. In the present study, the effects of cynicism (Mohr et al. 1998; Obermiller and Spangenberg 1998), consumer sentiment toward marketing (CSTM, Mohr et al. 1998), trait skepticism, and age (Obermiller and Spangenberg 1998) on CSTNP will be investigated in order to replicate the findings from previous studies for skepticism toward new products. In addition, the effect of two previously unexamined antecedents, product interest and product familiarity, is tested. Cynicism and trait skepticism are predicted to have positive effects on CSTNP. People that are generally cynical and skeptical are likely to also be more skeptical toward new products. Age is also predicted to have a positive effect on CSTNP due to increased knowledge, analytical skills, and counter-arguing that are assumed to accompany aging (Obermiller and Spangenberg 1998). CSTM, product interest and product familiarity are all expected to be negatively related to CSTNP. Consumers who possess a positive sentiment toward marketing activities are likely to be less skeptical than those possessing negative sentiments. Consumers who have a strong interest in a particular product are less likely to be skeptical since they are involved with the product (Koslow 2000). Finally, the prediction that familiar products will evoke less skepticism than unfamiliar products is based on the idea that people tend to question what is uncertain and unknown (Moston 1996; Rackham 1998). In summary, the following hypotheses will be tested.

H1: Higher cynicism leads to higher CSTNP.

H2: Higher trait skepticism leads to higher CSTNP.

H3: Higher consumer sentiment toward marketing leads to lower CSTNP.

H4: Higher age leads to higher CSTNP.

H5: Higher product interest leads to lower CSTNP.

H6: Higher product familiarity leads to lower CSTNP.

Regarding the consequences of CSTNP, the focus is on consumer judgment of new products and their purchase intention. Skeptical consumers are hypothesized to have more negative product judgments and lower purchase intentions than less skeptical consumers.

H7: Higher CSTNP leads to a more negative product judgment.

H8: Higher CSTNP leads to a lower purchase intention.

## METHOD

The purpose of the empirical study was twofold. The first purpose was to establish the targets of CSTNP. What are the aspects of a new product offering that consumers are skeptical about? The second purpose was to test the relations between the proposed antecedents and consequences of CSTNP. The details of the survey study are given below.

### Respondents, Stimulus Material, and Procedure

Consumers were randomly selected from a consumer panel. Of the 128 questionnaires, 94 were returned (73.4 percent). Of the respondents that returned the questionnaire, 49 were men and 45 were women. Their age ranged from 18 to 65 years (median 41 years). Filling out the questionnaire took approximately 30 minutes. Participation was rewarded with a small token of appreciation (a pen).

Respondents received a mail questionnaire including product descriptions-with-picture of three different new products. These three products were randomly selected from a pool of six: Aibo-robot, auto mower, TiVo, flat TV, super audio CD player, and wrist watch camera (see Appendix for the product descriptions). Six products were selected in order to enhance generalizability of the results. All of the products selected for this study were really new, in the sense that they were introduced to the Dutch market less than six months before the study took place (and some had not even been introduced yet). After a general introduction, the questionnaire presented respondents with a picture and short description of the first of the three products. Following this description were items measuring respondents' skepticism toward the product, their evaluation of the product, their interest in and familiarity with the product, the clarity of the product description, the amount of information in and the "informativeness" of the description, and their purchase intention. After the second and third product descriptions and corresponding questions, the questionnaire concluded with items measuring trait skepticism, cynicism, consumer sentiment toward marketing, and age.

### Measures

Answering scales for all measures were seven-point rating scales. CSTNP was measured by means of 20 specific items assessing skepticism toward different aspects of the new product and two general items. The aspects were performance, ease of use, durability, serviceability, value for money, prestige, quality, compatibility, relative advantage, novelty, and credibility of the information. The items reflecting skepticism toward each product aspect can be found in Table 1. The two general CSTNP items read "I am skeptical about the product" and "I cannot imagine that the product will become a success". Scale ends were completely disagree/completely agree.

Cynicism was measured with the six-item Kanter and Mervis scale (Mohr et al. 1998). Examples of items are "Most people will tell a lie if they can profit from it" and "Most people are just out for themselves" (completely disagree/completely agree).

Consumer sentiment toward marketing was scored on the 24-item Gaski and Etzel scale (cf., Mohr et al. 1998). For the sake of uniformity the original five-point Likert scale (completely disagree/completely agree) was adjusted to a seven-point one. Accidentally, one of the items related to product quality was not included in the questionnaire, resulting in a total of 23 instead of 24 items.

A measure of trait skepticism was developed, consisting of eight items (completely disagree/completely agree). Examples of items are: "My attitude in life is: seeing is believing", and "My friends and acquaintances think that I am a skeptic".

One item measured product interest: "How interesting do you find this product?" (not at all interesting/very interesting).

Two items assessed product familiarity: "How familiar are you with the product?" (not at all familiar/very familiar) and "How often have you read, seen or heard something about the product?" (never/very often).

Overall product judgment was assessed by one single item: "Taking everything into account, how positive or negative would your judgment of the product be?" (very negative/very positive).

Purchase intention was also determined by means of one single item: "Taking everything into account, how likely is it that you will buy the product within a half year from now?" (I will definitely not buy the product/ I will definitely buy the product).

## RESULTS

### Targets of Consumer Skepticism toward New Products

The 20 CSTNP items were subjected to factor analysis to establish whether they represented different targets of consumer skepticism. Factor analysis results are shown in Table 1. The eigenvalue > 1 criterion suggested a five-factor solution, accounting for 39.4, 9.3, 8.5, 6.9, and 5.4 percent of the variance, respectively. Total variance explained by these five factors was 69.6. Two items (items 8 and 16) were dropped due to communalities of less than .50 (Hair, Anderson, Tatham, and Black 1998). One additional item (item 17) was dropped because of an item-to-remaining-total correlation of .35 with the remaining Relative Advantage items (14 and 15) and because it suppressed the Cronbach's alpha substantially, from .90 to .75.

The resulting factor structure can be interpreted as follows. Factor 1, comprising six items, represents consumers' skepticism about the quality of the product. This quality judgment is composed of judgments about the product's performance, ease of use, durability, and general quality. These are all variables that have been identified as dimensions of product quality (Brucks, Zeithaml, and Naylor 2000; Garvin 1987). Skepticism about the compatibility of the product is captured by the second factor. It is not clear why Prestige also loads on this factor. Factor 3 holds the three items measuring skepticism about the credibility of the product information and Factor 4 the two remaining items indicating consumers' skepticism toward the relative advantage of the new products. Skepticism about warranty and service (serviceability) is captured by the fifth factor.

In an attempt to refine the factor structure further, i.e. to account for the distinction between the quality dimensions and to separate prestige from the compatibility factor, another factor analysis was run with nine factors to be extracted. The nine factors accounted for 89.2 percent of the total variance and were exactly the factors that could be expected on the basis of face validity (and our own previous expectations): Credibility (42.1 percent), Relative Advantage (10.1), Serviceability (9.0), Compatibility (7.5), Ease of Use (6.0), Performance (4.4), Prestige (3.8), Quality (3.6), and Durability (2.6). It is acknowledged that the extra amount of variance that is explained by Factors 6 to 9 is relatively low, but considering that the main purpose of the analysis is to identify the structure underlying skepticism toward new products (i.e. the targets of skepticism) rather than data reduction, the nine factor solution is preferred over one that is more parsimonious but less theoretically consistent.

**TABLE 1**  
Factor Analysis Results for CSTNP

Construct	Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Performance	1. I doubt if the product really does what it is supposed to do	.53				
	2. I doubt if the product will always function properly	.62				
Ease of use	3. I would first like to see if the product is easy to use	.81				
	4. I doubt if using the product is truly simple	.70				
Durability	5. I would first like to see if the product lasts long	.63				
Serviceability	6. I doubt if there is a good warranty on the product is wrong with the product					.80
	7. I doubt if the service is truly good when something					.83
<b>Value for Money</b>	<b>8. I doubt if the product is worth its money</b>		<b>.52</b>			
Prestige	9. I doubt if I want to be seen with this product		.59			
General quality	10. I would first like to see if this product is truly of good quality	.70				
Compatibility	11. I doubt if I really need the product		.77			
	12. I doubt if the product is something for me		.87			
	13. I doubt if I would really use the product		.82			
Relative advantage	14. I doubt if the product is truly better than similar products				.89	
	15. I doubt if the product has more to offer than similar products				.88	
	<b>16. I would first like to see if there are people who need this product</b>		<b>.59</b>			
<b>Novelty</b>	<b>17. I doubt if the product is truly new</b>				<b>.47</b>	
Credibility	18. I doubt if I should believe the information in the product description			.83		
	19. I doubt if what is said in the product description is really true			.87		
	20. I would first like to see if the information in the product description is correct			.76		

N.B. Factor loadings < .4 are eliminated to facilitate interpretation. Bold-printed items have been removed from further analysis.

Based on the result from the factor analysis, summary variables were created for Credibility ( $\alpha=.90$ ), Relative Advantage ( $r=.82, p<.01$ ), Serviceability ( $r=.71, p<.01$ ), Compatibility ( $\alpha=.85$ ), Ease of Use ( $r=.79, p<.01$ ) and Performance ( $r=.65, p<.01$ ) by calculating the average of the corresponding items. Next, content validity of the targets of CSTNP was tested by correlating each target with the general measure of skepticism toward the new product ( $r=.64, p<.01$ ). All targets were significantly and substantially correlated with skepticism toward the new product (see Table 2). To examine the relative contribution of each target to CSTNP, general skepticism toward the new product was regressed on the nine targets. The full model was highly significant ( $R=.79, F(9,270)=48.5, p<.001$ ). The Variance Inflation Factor (VIF) values (Table 2) are below the harmful level of 10 (Hair et al., 1998), so multicollinearity is not a problem. The beta coefficients indicate that the main targets of CSTNP are Credibility ( $b=.28$ ), Compatibility ( $b=.27$ ), and Prestige ( $b=.21$ ). Slightly less important targets are Relative Advantage ( $b=.14$ ), Performance ( $b=.11$ ), Durability ( $b=.10$ ), and Ease of Use ( $b=.09$ ). Targets not contributing to CSTNP are Serviceability and Quality.

#### Antecedents and Consequences of Consumer Skepticism toward New Products

A scale of cynicism was constructed by taking the average of the six items. Cronbach's alpha was .79 which is almost identical to the value of .78 found by Mohr et al. (1998). A scale of trait skepticism was created by taking the average of seven of the eight items. One item was dropped due to an item-to-remaining-total correlation of .26. Cronbach's alpha for the seven-item scale was .74. The index of consumer sentiment toward marketing was

calculated using the procedure outlined by Gaski and Etzel (1986, p. 73). The total range of the CSTM index was wider [-399 to +399] than that of Gaski and Etzel [-200 to +200], because a seven-point scale rather than a five-point scale was used here. The two items measuring Familiarity were averaged ( $r=.80, p<.001$ ) into a single variable. In order to test Hypotheses 1 to 6, correlations between each antecedent and CSTNP (a new variable created by summing the scores on the nine targets) were computed. In addition, a multiple regression analysis was performed to establish the relative impact of the antecedents. Product (1 to 6) was included in the regression analysis as well to assess potential differences in CSTNP that are due to the specific product respondents judged. Table 3 shows the results.

**TABLE 2**  
Correlation and Regression Results Targets of CSTNP

Target	Correlation with general skepticism toward the new product <sup>1</sup>	Beta coefficient <sup>2</sup>	VIF
Credibility	.60	.28 ***	1.7
Relative Advantage	.40	.14 ***	1.3
Serviceability	.41	-.03	1.6
Compatibility	.60	.27 ***	1.6
Ease of Use	.55	.09 *	2.1
Performance	.56	.11 *	2.0
Prestige	.59	.21 ***	1.7
Quality	.37	-.08	1.8
Durability	.47	.10 *	1.9

<sup>1</sup> For all correlation coefficients  $p<.01$

<sup>2</sup> One-tailed significance: \*  $p<.05$ , \*\*  $p<.01$ , \*\*\*  $p<.001$

All correlations, except the one between cynicism and CSTNP, were significant and in the expected direction. The correlations between CSTNP and Trait Skepticism, CSTM, and age were low, however. The relative impact of each antecedent was determined in a subsequent regression analysis. The full model was statistically significant ( $R=.65, F(7, 268)=27.6, p<.001$ ), accounting for 41.9 percent of the total variance. Inspection of the beta weights revealed that all antecedents except Age significantly predicted CSTNP. Note that this is true, even when the particular product that respondents judged was taken into account. Inexplicably and in contrast with Hypothesis 1, Cynicism had a negative coefficient: less cynical respondents were more skeptical of new products. Hypothesis 4 was also rejected. Age had no significant effect on CSTNP. Hypotheses 2, 3, 5, and 6 were all confirmed. CSTNP increased when Trait Skepticism increased, when CSTM was more negative, and when Product Interest and Product Familiarity decreased.

Regarding the consequences of CSTNP (Hypotheses 7 and 8), correlation analyses were conducted. Hypotheses 7 and 8 were both confirmed. Higher levels of product skepticism resulted in more negative product judgments ( $r=-.63, p<.001$ ) and lower purchase intentions ( $r=-.42, p<.001$ ).

## DISCUSSION

The present article introduced the concept of consumer skepticism toward new products (CSTNP) as a more comprehensive notion of consumer skepticism than skepticism toward advertising. Three main objectives were the development of a conceptualization and definition of CSTNP, the empirical examination of the underlying structure (i.e. the targets) of CSTNP, and the empirical test of several antecedents and consequences of CSTNP.

### Conceptualization of Consumer Skepticism

The first objective catered to the observation that consumer research has paid (too) little theoretical attention to conceptualizations of consumer skepticism and related constructs (Forehand and Grier 2002). In defining CSTNP,

explicit attention was given to the difference between skepticism and the closely related constructs doubt, disbelief, distrust, and cynicism. The cause for putting so much emphasis on a clear definition of skepticism was the observation that the lack hereof has led to a number of individual studies into consumer skepticism that are interesting and relevant on their own, but that have not contributed to the development of a "theory of consumer skepticism". Hopefully, the conceptualization and definition of consumer skepticism that have been outlined here may serve as a collective starting point for future research into consumer skepticism.

#### Targets of Consumer Skepticism toward New Products

An important part of the current conceptualization of CSTNP concerned the identification of its underlying structure, or targets. The results suggest that CSTNP is composed of nine individual 'sources' [When talking about the object of consumers= product skepticism, the term target is most appropriate. It refers to the aspect(s) of a product at which consumers direct their skepticism. When talking about the origin of consumers= product skepticism the term source is more appropriate. The terms target and source will be used interchangeably depending on the perspective that is taken.] of product skepticism, namely skepticism about the new product's performance, ease of use, durability, serviceability, quality, prestige, compatibility, relative advantage, and skepticism about the credibility of the information accompanying a product offering. These nine sources appeared as separate factors in a factor analysis and jointly accounted for nearly 90 percent of the total variance. Moreover, each of them significantly and substantially correlated with an overall measure of CSTNP. When their relative impact was assessed, credibility, compatibility, and prestige were found to be the most important sources of product skepticism. Overall product quality was an insignificant source of skepticism, and so was serviceability. The finding that product quality was a non-significant source is surprising given the fact that other dimensions of quality (Brucks et al. 2000; Garvin 1987), namely performance, ease of use, prestige, and durability, all appeared to be significant sources individually. The observation that serviceability did not significantly contribute to overall product skepticism may be explained by the fact that serviceability is not an aspect of the product per se, but of the supplier or seller instead. Also, it is quite difficult for respondents to judge the degree of serviceability on the basis of a product description only. Serviceability can be expected to play a much more important role, however, when consumers judge services instead of products, since serviceability is an implicit (quality) aspect of a service.

**TABLE 3**  
Correlation and Regression Results Antecedents of CSTNP

Antecedents	Correlation with CSTNP <sup>1</sup>	Beta coefficient <sup>1</sup>	VIF
Cynicism	-.03	-.15 **	1.2
Trait Skepticism	.17 **	.10 *	1.2
CSTM	-.18 **	-.14 **	1.1
Age	.12 *	.00	1.1
Product Interest	-.53 ***	-.39 ***	1.1
Product familiarity	-.45 ***	-.36 ***	1.3
Product	-	(-).12 *	1.1

<sup>1</sup> One-tailed significance: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

The finding that respondents are skeptical about the compatibility of the product suggests that when consumers are confronted with a really new product, they may well react to it as an attractive product, but that they may also question whether it is an interesting product for themselves. Hence, their skepticism does not result from their belief that the product is not good, but rather from their idea that they do not need it or that it does not fit them.

The relative importance of prestige as a source of CSTNP is interesting, because it stresses the social dimension of consumption. Apparently, when confronted with a new product, consumers are wary of the impression they will make on others if they are seen with it.

#### Antecedents and Consequences of Consumer Skepticism toward New Products



Cynicism, CSTM, and age were included in the present study, because they have been empirically demonstrated to be significantly related to skepticism toward advertising claims. Mohr et al. (1998) included cynicism in a nomological model of consumer skepticism toward environmental claims and found a positive indirect effect (through CSTM) of cynicism on skepticism. In this study, a negative effect of cynicism on CSTNP was found. We have no idea why this occurred. Respondents' age did not affect CSTNP either. This contrasts with the findings of Boush et al. (1994) who demonstrated a (weak) effect of age on consumer skepticism toward advertising, and of Obermiller and Spangenberg (1998) who found a significant correlation of .27 between age and ad skepticism. The absence of an age effect is particularly odd given the finding that general (trait) skepticism, a characteristic that is believed to be positively correlated with age, did have a significant effect on CSTNP. With respect to the relation between CSTM and CSTNP, the results were as expected. Mohr et al. (1998) found a significant squared multiple correlation of .30 between CSTM and consumer skepticism. Obermiller and Spangenberg (1998) obtained a significant correlation of .49 between CSTM and ad skepticism. Here, a lower but significant correlation of .18 was observed. In addition to respondents' skeptical predisposition and their general sentiment toward marketing, CSTNP appears to depend on product-specific factors such as respondents' interest in and familiarity with the product. This latter factor may seem paradoxical since new products are by definition unfamiliar to consumers. In this study, although all products were unfamiliar to respondents (the TiVo was least familiar with a mean score of 1.94 and the Flat TV was most familiar with a mean score of 3.86), some variance occurred nevertheless (all standard deviations were around 1.5).

This study also showed that CSTNP has strong negative effects on consumers' product judgment and purchase intention. This finding emphasizes the practical relevance of research into CSTNP. Consumers neither like nor buy new products toward which they are skeptical.

#### Suggestions for Future Research

The present study was the first study into consumer skepticism toward new products. In order to measure this construct, a scale was developed and adjusted. The definitive measure consisted of 17 items assessing nine targets of CSTNP. This scale of CSTNP measured product-specific skepticism, that is, state skepticism. A seven-item trait scale of skepticism was also developed and applied in this study. Evidently, both measures need further validation and adjustment.

Apart from the development of a measure of CSTNP, a theoretical model of CSTNP should be developed. A start has been made here by proposing a conceptualization of CSTNP and investigating potential antecedents and consequences of CSTNP. Clearly, more research is needed to identify and assess the importance of other variables that affect CSTNP or are affected by it, in order to end up with a comprehensive model of CSTNP. Examples of individual factors that could affect CSTNP are self-esteem, need for cognition, socialization in the family, innovativeness, and risk aversion. Product factors that could affect CSTNP are country-of-origin, innovation rate, and satisfaction with current products. Consequences of CSTNP that are worth investigating are consumer information processing (including information search behavior), product adoption, product beliefs, and product attitudes. As was argued in the introduction, a comprehensive model of CSTNP would be of highly practical value to producers and marketers of new products as well as to public policy makers and consumer organizations.

**APPENDIX 1**  
Product Descriptions

**Super Audio CD player**



The Super Audio CD Player is a CD player on which you can play both CDs and DVDs. You can connect the Super Audio CD Player to your stereo set and television. Actually, the Super Audio CD Player is a CD player and DVD player in one. By making use of Direct Stream Digital technology the audio quality is as close as possible to the original sound. The image quality is optimal too. It is possible to freeze the image perfectly and you can zoom in without losing image quality. You can fast forward and rewind. The Super Audio CD Player is able to copy the Surround Sound effect by means of two speakers, without having to connect special surround speakers. There is a child lock installed on the Super Audio CD player, allowing you to determine which CDs and DVDs can be played by your children. The Super Audio CD Player comes in silver color and with remote control. There is a one-year warranty on the Super Audio CD Player. The price is 1.799 Euro.

**AIBO - robot**



AIBO is a robot pet. AIBO has been designed to look like both a cat and a dog. As a result, the owner can decide what AIBO is. It also has the size of a cat or a small dog. AIBO is an intelligent robot. It can learn things and its behavior depends on its interaction with the owner. The type and quantity of attention determine AIBO's personality. This causes all AIBO's to be different from one another. AIBO can hear, see and feel, and keeps its balance by itself. In addition, it has emotions; it is kind and curious; it is able to recognize human voices, and it responds to greetings. AIBO moves freely and energetically; it can move its legs, head, tail, ears, and mouth. It is eager to perform well and is even able to take pictures of whatever it sees. AIBO functions on a rechargeable battery. Various facets of AIBO's behavior can be altered by changing the software. There is a one-year warranty on AIBO. The price is 1.815 Euro.

**Automower**



The Automower is an automatic lawn mower. When the Automower is activated by keying in a code, it will mow the lawn completely independently every day. It detects places where the grass is too long and mows this. The area that the Automower has to mow is determined by underground cables. The cables have to be laid before the Automower can be used for the first time. The Automower mows places that are hard to reach with a regular mower and avoids obstacles such as trees and garden furniture. Because the Automower mows the lawn every day, the amount of cut grass is little. This does not have to be removed because it serves as fertilization for the lawn. The Automower functions on a rechargeable battery. When the battery runs low, the Automower will automatically return to the supplied charger and will continue mowing after recharging. The Automower is 71 cm long, 60 cm wide and 26 cm high and comes in a green color. There is a one-year warranty on the Automower. The price is 1.909 Euro.

**Flat TV**



The Flat TV is a television that is only 9 cm deep. As a result, it can be fixed on a wall or mounted on a stand which can be ordered with the Flat TV. The Flat TV is so flat because the tube is a plasma screen. This offers a clear and stable image with beautiful color, and without disturbance from reflections of light. The Flat TV has a diagonal screen size of 82 cm. Furthermore, it continuously adapts the image for optimal color, sharpness, and contrast. The Flat TV has stereo sound and can be connected to practically all VCRs and DVD players. Multiple images can be simultaneously displayed on the screen allowing for viewing of multiple channels at the same time. Video-text pages can be loaded quickly and browsed without waiting. The frame surrounding the plasma screen is available in various colors at a surcharge. The Flat TV comes with remote control. There is a one-year warranty on the Flat TV. The price is 7.999 Euro.

**Wrist Watch Camera**



The Wrist Camera is both a wrist watch with a color display and a built-in digital photo camera. The Wrist Camera is lightweight and can do whatever a standard wrist watch can. The Wrist Camera, allows you to take pictures wherever and whenever you want. One hundred pictures can be stored in the Wrist Camera's memory and you can view them immediately. Four pictures can be shown simultaneously on the display, allowing you to view multiple photos in a short space of time. Furthermore, you can look them up quickly because they are numbered. With the Wrist Camera you can zoom in and out and add text and data to the pictures. You can also create a visual address book with the Wrist Camera by adding text to people's pictures. The photos can later be loaded into a computer, after which they can be edited and printed. The Wrist Camera is water-resistant with a stopwatch and alarm clock. There is a one-year warranty on the Wrist Camera. The price is 315 Euro.

**TiVo**



TiVo is a digital video recorder which can be connected to your television set. TiVo does not use video tapes but a disc with a capacity of 60 hours. TiVo automatically records programs that you watch regularly. Whenever you are disturbed during a show, TiVo can directly record it so that you can watch it later. With TiVo you can even watch a program while it is being recorded. You can program TiVo so that it will record all shows featuring your favorite actor, for example. In this way, you do not have to miss anything and you can watch programs whenever you want to. TiVo only works in combination with TiVo Service. You are connected via your telephone network to this TiVo Service, which ensures that everything is recorded at the right moment. Recorded programs and other installations can be viewed on the screen of your television. TiVo comes with remote control. There is a one-year warranty on TiVo. The price of the recorder is 455 Euro. The TiVo Service costs 15 Euro per month.

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