An Expectancy-Value Approach to Determinants of Trust

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Abstract

An Expectancy-Value model was used to test various attributes of trustworthiness, as determinants of people's trust in 5 Swedish organizations (public and commercial). Trust was conceptualized as an attitude, dependent on respondents' beliefs about and evaluations of the organization with respect to these attributes. A survey was sent out to a sample representative of the Swedish population (response rate: 55.5%; N = 347). It was found that the Expectancy-Value Model was powerful in explaining trust in 3 organizations. However, it was also found that a model including only values as predictors of trust was more powerful in explaining trust in 2 organizations: the Swedish Government and advertising firms. The phenomenon of double denial (Sjöberg & Montgomery, 1999) was very strong, which could be an important explanation of these findings. It is discussed whether double denial could be caused by trust ratings based on ideologies (e.g., political or general anti-business) subscribed to and emotional reactions, rather than analytical evaluations of an organization.

Keywords: trust, attitude, organizations, expectancy-value

An Expectancy-Value Approach to Determinants of Trust

Introduction

It is generally assumed that trust is associated with a multitude of benefits. Social theorists have argued that, for individuals, trust is necessary to be able to handle the increasing complexity and uncertainty of modern society (Giddens, 1990; Luhmann, 1979; 1988). Scholars active in the field of organizational behavior have identified a large number of possible benefits of trust, for commercial as well as non-commercial organizations (for a review, see Kramer, 1999). However, despite of the growing interest in research on trust, there is still low consensus as to the meaning of trust and its antecedents (McKnight & Chervany, 1996). Thus, there is a need to further examine the concept of trust and the determinants of people's trust in organizations. In the present article, an Expectancy-Value model (based on a conception of trust as an attitude) was used to test various attributes, which have been proposed as determinants of people's trust in an organization.

There are several reasons for using this approach when studying determinants of trust in organizations. First, as noted above, there is a lack of consensus among trust researchers on how to define and measure trust. The Expectancy-Value model is an established approach in attitude research and may help to clarify the concept of trust, especially if it is tested on empirical data. Second, the model allows for an estimate of the amount of variance accounted for by what could be conceived of as a latent construct of perceived trustworthiness. It is important to here note that the use of the term trustworthiness in the present study is based on previous research where trustworthiness is described as an attribute of individual parties. A trustworthy organization is one that possesses certain qualities that merit trust (Sanner, 1997). Third, the model gives a possibility to determine different attributes' relative impact on trust. Fourth, although earlier studies have been able to identify the impact on trust, caused by beliefs about attributes (e.g., Peters, Covello & McCallum, 1997), no studies have combined beliefs with values, as postulated by the Expectancy-Value model.

As indicated above, previous studies have concentrated on the determinants of trust. Frewer, Howard, Hedderley, and Shepherd (1996) investigated determinants of trust in information about food risks and found that trust is a multidimensional concept; people do not trust information solely on the basis of perceptions of expertise and knowledge of the information source. Kasperson, Golding and Tuler (1992) also reported research on determinants of trust. Four dimensions of trust were identified: (1) Commitment to a goal (which in turn is based on perceptions of objectivity, fairness, and information accuracy), (2) Competence, (3) Caring, and (4) Predictability. Metlay (1999), partly building on these results, further investigated dimensions of trust in a risk context. Credibility and fairness, besides the factors mentioned above, were considered important dimensions of trust and it was found that these factors were strongly related to trust and confidence in the Department of Energy in the USA.

One common feature of research on dimensions of trust in a risk context is that trust is based on perceptions or beliefs about whether an organization possesses a certain attribute. This is also the case with another important article on trust (Peters, Covello & McCallum, 1997). Here, it was found that perceptions of trust and credibility in a context of environmental risk communication were dependent on three factors: perceptions of knowledge and expertise; perceptions of openness and honesty; and perceptions of concern and care. In the present study, it was tested whether trust is a function of (1) perceptions of different qualities of organizations, and (2) evaluations of how desirable these qualities actually are. Even though it might seem like common sense that, for example, honesty and competence are good organizational qualities, it is not evident to what extent, and whether there are differences between such desirable qualities.

One model that allows for an inclusion of both beliefs/perceptions and evaluations is the Expectancy-Value model, originally developed by Fishbein and Ajzen (1975), resting on the assumption that an attitude towards an object is dependent on beliefs about the properties of that object as well as evaluations of these properties (i.e., whether it is good or bad that the object is associated with the properties). The model is formulated as an equation:

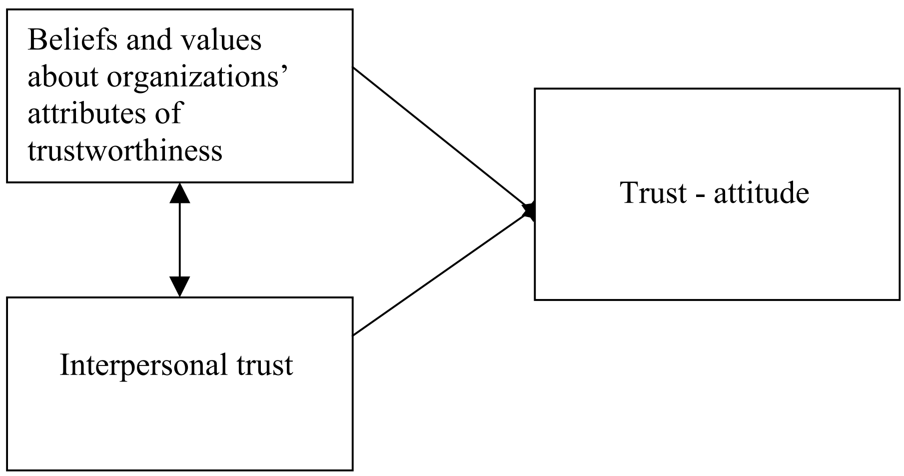
$$A = \Sigma bV.$$

In this equation, b is the belief that the object has a certain property and V the value of that property. Summation is across all salient properties of the object. According to Sjöberg (1999a), a successful application of the Fishbein model may involve up to 40% explained variance of attitude (here: trust in an organization), but a more typical value would be some 25% explained variance. For an excellent and detailed review of attitude research, see Eagly and Chaiken (1998).

In the present study, the Expectancy-Value Model was applied to study determinants of trust in organizations. The basic design was to use people's ratings of trust in five different organizations as dependent variables, representing the observed trust attitude towards each organization, respectively. The independent variables were people's beliefs about whether the organizations have certain attributes and also people's evaluations of these attributes (i.e., if it is good or bad that the organization has a certain attribute). By applying an Expectancy-Value model, through summing all products between belief and value for each attribute, a predicted (or expected) trust attitude towards each organization was calculated. The higher the correlation between predicted and observed trust attitude, the better the model.

The relation between predicted attitude and observed attitude was the main element in the fit of the hypothesized model that was examined in the present study. The hypothesized model consisted of two independent variables and one dependent variable (Figure 1). If the correlation between predicted attitude (independent variable) and observed attitude (dependent variable) is high for each organization, it is probable that observed trust attitude is in fact, to a large extent, dependent on people's beliefs and evaluations of different attributes of that organization. However, it is also important to make sure that observed trust attitude is indeed a measure of trust. Therefore, it was also hypothesized that general interpersonal trust (measured by the dichotomous question "Do you think that most people can be trusted or that one cannot be too careful when dealing with strangers?") determines observed trust. If significant correlations between interpersonal trust (that is, the second independent variable in the model) and observed trust in organizations can be distinguished, it can be considered likely that these measures have some common "trust" property.

Figure 1. Hypothesized model of determinants of trust in organizations



The five organizations that the respondents were asked to evaluate in different respects were:

- The Swedish Government
- Swedish advertising firms
- Swedish e-commerce companies
- The Swedish Nuclear Power Inspectorate (SKI)
- The Swedish Trade Union Confederation (LO)

There are several reasons why these five organizations were chosen. It was considered necessary to select a variety of organizations, for example commercial versus non-commercial organizations, in order to be able to generalize the results. All these organizations were also seen as relevant to individuals, in different respects. Many people are organized in unions in Sweden and there are many possibilities for people who put high trust or low trust in these unions to affect the unions. One obvious way people can demonstrate their opinion is by being members of a union or not. Further, apart from organizing many people, the unions have considerable political power in Sweden, a phenomenon often referred to as corporativism (Bäck & Möller, 1990). The Swedish Trade Union Confederation will henceforth be referred to as the Workers' Union, as it organizes workers in Sweden.

The Government is an obvious selection when it comes to important policy-makers. Energy policy and the management of nuclear power are important issues to Swedes, thus making it interesting to incorporate the Nuclear Power Inspectorate.[1] When it comes to commercial organizations, distrusting consumers usually have the choice to show their opinion by simply not buying products offered by the particular organization. This is the case for e-commerce companies, which are interesting to study due to both the obvious element of risk in the business transaction and the fact that these are fairly new actors on the market. The impact of advertising firms is usually less easy to avoid; in modern society it is hardly possible to escape all forms of advertising. Trust in advertising firms is also interesting to study based on the fact that they often handle the communication from commercial organizations to individuals.

[1] I have unpublished data indicating that trust in the Nuclear Power Inspectorate is more important in explaining levels of perceived risk than trust in any other organization studied (e.g., national governments and national radiological protection authorities), often not only in the case of nuclear risks, but also when it comes to non-nuclear radiation risks and other risks.

In total, there were eleven attributes to evaluate. All attributes listed below were hypothesized to correlate positively with high trust, except for "acting in self-interest" and "part of a power elite".[2]

- Competence
- Efficiency
- Commitment to a goal
- Part of a power elite
- Openness
- Consistency
- Honesty
- Credibility (promise-keeping)
- Fairness
- Concern/care
- Acting in self-interest

Most of these attributes have been mentioned above. It is important to note that different authors have interpreted some of these concepts differently. For example, according to Metlay (1999), low credibility in an organization is equivalent to its acting on perceived self-interest. Lipset and Schneider (1983) argued that credibility is largely a function of perceived self-interest, but the two concepts are not the same thing according to them. Here, it is argued that credibility rather should be defined as "A person is credible if he or she does what he or she says he or she will do", in accordance with Stack's (1978) interpretation. Hence the dimension of credibility (in the questionnaire operationalized as "promise-keeping") is included, with a different meaning than that suggested by Metlay. Perceived self-interest is also included as an attribute of trustworthiness.

Another note regards the consistency attribute. This attribute is interpreted as being similar to predictability. It should be noted, though, that the concepts are not entirely identical (Kasperson, Golding & Tuler, 1992). Consistency is not always desirable, since it may lead to bad decisions, perhaps due to a lack of flexibility. However, consistent is the best term to use in Swedish questionnaires ("konsekvent") and it is probable that people mainly perceive it as

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[2] It was not hypothesized that there would be a negative correlation between trust and "being part of a power elite" in the case of the Government. It is probably an accepted fact that the Government has much power in society.

being non-arbitrary. Efficiency is an attribute related to competence, but it is not its equivalent. According to Lipset and Schneider (1983), institutions regarded as efficient are generally more trusted than institutions regarded as inefficient. Finally, one important result reported by Lipset and Schneider was that people do not trust institutions which are regarded as part of a power establishment. Thus, concentration of power (operationalized as the belief that an organization is part of the power elite in Sweden) is one attribute of possible importance for people's levels of trust in an organization.

Summing up, two main questions were asked in the present study:

1. Is the suggested model supported by data? That is, is there a high correlation between predicted and observed trust attitude, and is there a substantial correlation between interpersonal trust and observed trust?
2. What attributes are the most important determinants of trust? That is, what attributes are most correlated with observed trust, and are there any differences between beliefs and values when it comes to the strength of the relationship with observed trust?

Method

Pre-test of the questionnaire

A mail survey was used as means of collecting data. Because the Expectancy-Value model had not previously been used in attempts to explain trust ratings, it was decided that the approach would be pre-tested in order to determine if the method had potential to yield interesting results. Other aspects of the questionnaire were also tested, such as formulations of questions, layout, and organizations and attributes to be included.

A first version of the questionnaire was developed, which was evaluated by approximately ten colleagues at the Center for Risk Research and Section for Economic Psychology, Stockholm School of Economics. The changes that were made after this first evaluation mainly pertained to layout. The new version of the questionnaire was then distributed to 20 persons, a mix between colleagues, students at the school and friends. The final step was to conduct interviews with some of the people who had completed the questionnaire. Six respondents were asked about their thoughts on the concept of trust, reasons for why they trust someone or something, their thoughts behind their ratings of trust in organizations, and general thoughts about the questionnaire. Furthermore, two people who had not completed the questionnaire were interviewed, by means of the think-aloud technique. These two persons filled out the questionnaire as they were observed; before the interview they were instructed to talk out loud, as much as possible, what they were thinking as they filled out the questionnaire. When appropriate, respondents were asked to clarify or to specify what they were thinking. The results from these interviews were very satisfying and resulted in many constructive proposals and ideas. In this stage, the final organizations to be included in the questionnaire were chosen. One attribute (commitment to a goal) was also added to the list of possible attributes of trustworthiness. This inclusion was a result of the fact that many respondents stated that a main reason for them to trust an organization was that "they are trying to do their best". By using "commitment to a goal", the purpose was to catch this reason. "Commitment to a goal" is assumed to signal ambition and intentions to carry out work in the best way possible. The questionnaire was also simplified and made easier to understand for respondents as a consequence of the interviews (for example, a clarifying text about Internet and e-commerce firms in the questionnaire was included). Some items in the questionnaire were also reformulated (both new items and items from earlier used scales), in order to make them easier to understand.

Questionnaire

The final version of the questionnaire was quite extensive and the respondents were asked to answer a total of 245 items on 33 pages. The following variables were included and analyzed in the present study:

1. Items regarding beliefs and values about the eleven attributes of trustworthiness of each organization
2. A dichotomous question measuring interpersonal trust
3. Trust ratings for each organization
4. Self-reported knowledge of each organization
5. Personal experience of each organization
6. A scale measuring general trust, developed by Rotter (1967)
7. A scale measuring general trust, developed by Sjöberg (1999b)
8. A scale measuring general trust, developed for the present study, with a focus on behaviors thought to represent high or low trust
9. Demographic variables

Sample procedures and data collection

A sample of 750 respondents was bought from SPAR (Statens Person- och Adressregister).[3] This sample included respondents in the age range 20–75, but some people had turned 76 when they responded to the questionnaire. A fairly large proportion of the respondents was excluded from the sample because the address had been wrong, and the net sample finally consisted of 625 respondents. The purpose was to work with a sample representative of the population. Based on the sample distribution of some important demographic variables (e.g., level of education, sex, and age), the purpose was achieved, since the numbers were similar to those reported for the population as a whole. However, the average level of education was somewhat higher for the sample, which is often the case in these types of surveys. As to the statistical possibilities of representativity of a sample of this size, it has been shown that such samples can be basically as representative of large populations as larger samples (Viklund, 1999).

The questionnaires were sent out in March 2001 and after three reminders 347 respondents had completed and returned the questionnaire, yielding a response rate of 55.5%. A while after the completion of the survey process, a subsample of 20 non-respondents was also interviewed over the phone to check their similarity with the attitudes of the respondents on a few of the questions. The telephone interviews showed that the non-respondents had very similar views to the respondents. One difference was, however, that e-commerce firms were less trusted among the respondents in the subsample. This could possibly be due to the fact that IT companies suffered from substantial financial setbacks during the survey period.

Data analysis

Most variables were measured on five or seven step Likert scales. Beliefs and values about organizational attributes were measured on scales with seven steps, ranging from –3 (“very unlikely”, for beliefs, and “very bad”, for values) to +3 (“very likely” and “very good”). The other Likert scales also included seven steps (no numbers were assigned to the steps), except for the scales developed by Rotter (1967) and Sjöberg (1999b), which included

[3] SPAR is an official register that includes basic data about Swedish citizens and people living in Sweden. It is among other things used to produce samples, e.g., for research and direct advertising.

five steps. Demographic variables (e.g., gender) were measured by using traditional nominal scales with different categories (e.g., male or female).

The Expectancy-Value Model allows for a construction of a measure of predicted trust. The maximum predicted trust score for an organization is +9 (+3 * +3 or –3 * –3, for each of the eleven attributes, respectively) and the minimum score is –9 (+3 * –3). The correlation between predicted and observed trust is a measure of the quality of the Expectancy-Value Model for each organization. Correlation analyses were important means of analyzing data for other variables as well. The other main tool for data analysis was calculation of means.

The general trust scales developed by Rotter (1967) and Sjöberg (1999b) have been used in earlier research and are in the present study referred to as A and C, respectively. Items in these scales are basically attitudes towards different social agents, such as corporations, politicians, and the fellow man. General trust scale B was developed for the present study, including items measuring both trusting behavior and trusting attitudes.

Due to a printing mistake, trust scales A and C could not be used in the analysis of data from the first 270 collected questionnaires. The mistake was that the word "not" was omitted from the question headings, causing the wording of two opposite response alternatives to be identical. Fortunately, these scales were not the main topic of the present study, but mainly intended to be used for validation purposes. The validation analysis was performed on the remaining 67 questionnaires.

Results

The levels of interpersonal trust were fairly similar to levels earlier reported in Swedish data. A majority (60.5%) of the respondents agreed with the statement that most people can be trusted, in contrast to those with the opinion that one can not be too careful when dealing with strangers. Interestingly, there were large differences in levels of interpersonal trust, related to some important demographic variables.

These demographic variables were mainly related to social class. For example, highly educated respondents (at least some education after secondary school) were more trusting (75.6%) than people with lower education, where only approximately 50% of the respondents agreed that most people can be trusted. This tendency is even clearer when it comes to membership in unions. Respondents who reported to be members of the union for college-educated people (SACO) were very trusting (96.2%). White-collar workers (TCO) were also trusting (77.4%), while the levels for blue-collar workers (LO) were much lower (52.5%).

Moreover, respondents were divided into three equally large categories depending on reported household income and there were large differences between these categories. Respondents with the highest income were more trusting (78.4%) than respondents in the middle category (61.1%), who, in turn, were more trusting than respondents with the lowest income (50.5%) were.

There were also interesting differences in interpersonal trust related to political preferences. The respondents were asked to mark their position on a scale measuring their political preferences from left (1) to right (5), where 3 was neither left nor right. According to the results, respondents to the left were more trusting. However, the respondents marking the extreme options (1 and 5) were relatively few, thus making it important to treat these figures with some caution. The percentages for the categories 1 to 5 were 86.7, 64.0, 64.7, 58.6, and 58.3, respectively. There were also interesting differences related to respondents' political party preferences, although most figures should be treated with caution, because of relatively few respondents choosing most parties. The two major political parties, the Social Democratic party and the Moderate party, attracted enough respondents to make the reported trust percentages (62.8% and 54.1%, respectively) statistically certain. The Liberal party (N = 23) attracted more trusting respondents (82.6%) than any other party and the share of trusting respondents was also relatively high for the Left party (69.7%) and the Christian Democrats (66.7%). People who did not chose any of the listed, established, political parties (N = 17) were the least trusting (41.2%).

When it came to other demographic variables (e.g., gender, single/not single, and place of living), there were no or small differences in interpersonal trust. Interpersonal trust in different age categories is an interesting aspect. Although the differences related to age were not dramatically large, the main tendency was that younger (< 30) and in particular older respondents (> 60) were less trusting than middle-aged respondents. Rothstein (1997) found the same pattern in a large sample, representative of the Swedish population.

People put different levels of trust in different organizations. In Table 1, average trust is reported for the five organizations. Both observed trust, on a scale from 1 to 7, and mean ratings of all beliefs and values are included. When mean ratings of beliefs and values were calculated, individual ratings of beliefs were corrected on the basis of direction of values and individual ratings of values were corrected on the basis of direction of beliefs. That is, if an attribute was considered negative (-3 to -1) for a given organization, the scale measuring ratings of beliefs was reversed. Thus, if an individual considered it very likely (+3) that organization X possessed the negative (-3 to -1) attribute Y, the rating of belief was reversed to -3. To possess a negative attribute is as bad as not possessing a positive attribute. The same logic was applied to values; if it is very positive to possess an attribute that it is unlikely that the organization possesses, this is equivalent to it being very negative to possess an attribute that it is likely that the organization possesses. Neutral ratings (0) were excluded from the analysis. The corrected scales for mean beliefs and values ranged from 1 to 7.

Table 1

Levels of observed trust and mean ratings of beliefs and values for the five organizations

Organization	Observed trust		Beliefs		Values	
	M	SD	M	SD	M	SD
Government	3.69	1.25	4.51	1.01	4.51	1.42
Advertising	2.77	1.19	4.47	0.88	4.52	1.07
E-commerce	3.01	1.18	4.45	0.89	4.55	1.19
Nucl. Insp.	4.27	1.39	4.98	0.83	5.48	1.15
Union	3.64	1.32	4.66	0.99	4.93	1.41

The pattern in levels of trust was to some extent similar between observed trust, on one hand, and mean ratings of beliefs and values, on the other hand, which might indicate significant correlations between observed and predicted trust. For example, on the average, people put considerably higher trust in the Nuclear Power Inspectorate than in any other organization, and the mean ratings of beliefs and values were also highest for this organization. However, it is interesting that the differences among advertising firms, e-commerce firms, and the Government, with respect to beliefs about and values assigned to attributes of trustworthiness were negligible. Based on an assumption about high correlations between observed trust and predicted trust, ratings of observed trust imply a considerably higher (than was the case) mean of beliefs about trustworthiness for the Government as compared to e-commerce firms. E-commerce firms, in turn, should receive higher (than was the case) ratings of beliefs as compared to advertising firms.

When looking at ratings of beliefs with respect to separate attributes, it was found that respondents on average considered it much more likely that advertising firms are competent, efficient and committed to a goal, compared with e-commerce firms, the Government, and the Workers' Union. On the other hand, advertising firms were also considered less likely to be honest and caring. Interestingly, the Government was rated lowest in credibility and consistency.

An interesting finding was also that the mean value ratings were considerably higher for the Nuclear Power Inspectorate and the Workers' Union, compared with the other organizations. Considering that these organizations also were rated relatively high on observed trust, the evaluations could partly be a consequence of wishful thinking. It is also possible that respondents are less positive towards success for organizations that they dislike and/or distrust. For example, some respondents might be ambivalent when asked about whether it is good or bad that the Government is competent and keeps its promises. If the Government would be perceived as very competent, this would most likely increase its chances to be re-elected, which is not necessarily desirable. And if the Government would keep its promises, it would mean decisions that some people know they would dislike. The same logic could be applied to e-commerce and advertising firms.

As in the case of interpersonal trust, there were differences in observed trust in organizations, related to demographics. Some of the same tendencies as in the case of interpersonal trust could also be found for trust in organizations, but the pattern varied depending on organization. Aspects of political ideology apparently came into play. Left-wing respondents put higher trust in the Workers' Union and the (Social Democratic) Government, while right-wing respondents put higher trust in advertising firms and e-commerce firms. Income was still an important variable. An interesting result was the clear relationship between income and trust in the Government. The higher their income, the more trust respondents put in the Government, which might give support to a hypothesis about better-off citizens being more pleased with the state of society. Another interesting result was the clear relationship between age and trust in e-commerce firms. On the whole, the younger the respondents, the more trust they put in e-commerce firms. This might be explained by the newness of these firms and the fact that younger people probably are more used to the new technology and more experienced when it comes to shopping on the Internet.

The effects of knowledge and personal experience of an organization on trust in that organization were tested. There were no effects of experience, except for in the case of the Workers' Union (Pearson's $r = 0.17$; $\underline{p} < 0.005$) and the case discussed above; e-commerce firms (Pearson's $r = 0.34$; $\underline{p} < 0.0005$). The effect of self-rated knowledge on trust was significant for all organizations. The correlations were moderate for the Government and advertising firms (0.18, $\underline{p} < 0.005$; 0.14, $\underline{p} < 0.05$), slightly higher for the Nuclear

Inspectorate and the Workers' Union (0.24, $p < 0.0005$; 0.20, $p < 0.0005$), and rather high for e-commerce firms (0.38, $p < 0.0005$).

The hypothesized model in Figure 1 was tested. The assumptions were that there would be high correlations between predicted trust in an organization and observed trust in that organization, but also substantial correlations between interpersonal trust and observed trust in organizations. In Table 2, correlations are presented for these relations. Predicted trust in an organization was calculated by summing the products of beliefs and values about each attribute, respectively. Cronbach's alpha for predicted trust was above 0.80 for all organizations, except for advertising firms (0.77).

Table 2

Correlations (Pearson's r) between interpersonal trust and observed trust in organizations and between predicted and observed trust in organizations

	Observed trust				
Variables	Government	Advertising firms	E-commerce firms	Nuclear Power Insp.	Workers' Union
Interpersonal trust	-0.33***	-0.12*	-0.17**	-0.32***	-0.13*
Predicted trust	0.39***	0.26***	0.31***	0.44***	0.58***

* $p < 0.05$. ** $p < 0.005$. *** $p < 0.0005$.

The hypothesized model appeared to work very well for the non-commercial organizations. For advertising firms and e-commerce firms, the correlations were significant but rather moderate. The only case where there was a significant correlation between interpersonal trust and predicted trust was for the Nuclear Inspectorate (-0.21, $p < 0.0005$).

The next step was to estimate the influence of different attributes of perceived trustworthiness on observed trust. In Table 3, the correlations between beliefs about organizational attributes and trust in each organization are presented.

Table 3

Correlations between respondents' beliefs about attributes of trustworthiness and observed trust in organizations

	Government	Advertising	E-commerce	Nuclear Power Insp.	Workers' Union
Competence	0.65***	0.24***	0.34***	0.45***	0.60***
Efficiency	0.49***	0.11	0.26***	0.29***	0.55***
Goal	0.53***	0.11*	0.27***	0.30***	0.40***
Power elite	0.18**	-0.06	-0.02	-0.15*	-0.03
Openness	0.41***	0.14*	0.18**	0.24***	0.40***
Consistency	0.41***	0.27***	0.21***	0.30***	0.46***
Honesty	0.57***	0.36***	0.31***	0.44***	0.60***
Promise	0.49***	0.38***	0.33***	0.42***	0.53***
Fairness	0.55***	0.38***	0.31***	0.30***	0.57***
Care	0.50***	0.27***	0.27***	0.20***	0.56***
Self-interest	-0.37***	-0.12*	-0.02	-0.40***	-0.33***

* $p < 0.05$. ** $p < 0.005$. *** $p < 0.0005$.

The average strength of the correlations between beliefs and observed trust was on higher levels for the Government and the Workers' Union, compared with the other organizations. When looking at the predictive power of different beliefs on trust in the five organizations, an interesting pattern could be observed. It appeared as if two important dimensions of beliefs were important for levels of trust in an organization. The first dimension was related to perceived competence and included beliefs about competence, efficiency, and commitment to a goal. The other dimension was related to morality and included perceptions of honesty and credibility and to a slightly smaller extent also perceptions of fairness and care. The strength of the impact of the beliefs varied depending on organization, but the general pattern was clear. One exception, however, was advertising firms, where the competence dimension was rather weakly related to observed trust. Perceptions of honesty, credibility, and fairness were more important for trust in advertising firms, but, even so, it is clear that the Expectancy-Value Model worked better for the other organizations. Perceptions of openness and consistency were important for observed trust, but less important than the attributes discussed above.

In Table 4, the correlations between values associated with organizational attributes and trust in each organization are presented.

Table 4

Correlations between values assigned to attributes of trustworthiness and observed trust in organizations

	Government	Advert. firms	E-comm. firms	Nuclear Power Insp.	Workers' Union
Competence	0.35***	0.13*	0.20***	0.31***	0.19**
Efficiency	0.31***	0.18**	0.23***	0.27***	0.23***
Goal	0.36***	0.15*	0.22***	0.27***	0.22***
Power elite	0.26***	0.00	0.04	-0.09	0.23***
Openness	0.25***	0.05	0.04	0.14*	-0.02
Consistency	0.27***	0.11	0.15*	0.20***	0.17**
Honesty	0.30***	0.11	0.15*	0.23***	0.13*
Promise	0.24***	0.14*	0.17**	0.20***	0.16*
Fairness	0.24***	0.11	0.16*	0.12*	0.14*
Care	0.24***	0.06	0.11*	0.09	0.13*
Self-interest	-0.06	0.06	0.02	-0.16*	-0.01

* $p < 0.05$. ** $p < 0.005$. *** $p < 0.0005$.

The pattern regarding effects of evaluations on trust was basically the same as the pattern regarding effects of beliefs on trust. The average levels of correlations were higher for the Government, the Nuclear Power Inspectorate, and the Workers' Union, compared with advertising and e-commerce firms. It was also found that values in general had a weaker correlation with trust than beliefs, independent of the type of organization.

In relation to Table 2, it was concluded that the Expectancy-Value model seems to work fairly well, in terms of explaining observed trust by means of multiplying beliefs and values for each attribute and combining the products into a measure of predicted trust for each organization, respectively. However, it is also important to test whether the sum of beliefs and/or the sum of values was better than the sum of products of beliefs and values in explaining observed trust. Correlations for these relationships are presented in Table 5. Individual ratings of beliefs were here corrected on the basis of direction of values and individual ratings of values were corrected on the basis of direction of beliefs, according to the earlier described method.

Table 5

Correlations between sum of beliefs and observed trust and sum of values and observed trust

	Observed trust				
Variables	Government	Advertising firms	E-commerce firms	Nuclear Power Insp.	Workers' Union
Sum of beliefs	0.35***	0.27***	0.25***	0.42***	0.55***
Sum of values	0.44***	0.35**	0.29***	0.45***	0.53***

** $p < 0.005$. *** $p < 0.0005$.

When the sum of beliefs and the sum of values were compared with the original Expectancy-Value Model, some interesting results could be observed. It is, for example, important to note that the differences in explanatory power between commercial and non-commercial organizations persisted. It is also clear that the combination of beliefs and values (as postulated by the Expectancy-Value Model) did not add much explanatory power, as compared to when separate measures of sum of beliefs and sum of values were tested. In fact, in the cases of the Government and advertising firms, the sum of products of beliefs and values was considerably worse in explaining observed trust compared with the sum of values. The importance of values may indicate that the Government and advertising firms are particularly influenced by people's values and ideologies (related to business and politics) subscribed to.

One possible reason, related to the aspect of ideological considerations, for this relative failure of the Expectancy-Value Model could be a process of double denial (Sjöberg & Montgomery, 1999). This phenomenon occurs when people, while expressing their attitude toward an object, deny both the probability of attributes that would speak against the attitude and the value of these attributes. In a context of trust in organizations, this could be the case for a person who puts low trust in the Government, according to the observed trust rating. When asked about the probability for the Government to keep its promises, this person might, logically consistent with his or her low trust, assign low probability to this event. When asked about whether it is good or bad that the Government keeps its promises, the respondent might assign this event a low value, since he or she dislikes the political program of the

Government and/or wishes that the Government would consist of representatives with the same political ideology as he or she instead (assuming that a Government that keeps its promises is more likely to stay in power). However, according to the logic of the Expectancy-Value Model, low probability combined with a negative value should result in a positive attitude (trust) toward the Government. The reason for double denial to occur is based on the assumption that the individual does not consider the combined effect of probability denials and value denials, but uses each type of denial as a supportive argument for his or her attitude. Hence, double denial is assumed to arise in an argumentative mode of information generation, in contrast to an analytical mode of information integration.

Sjöberg and Montgomery assumed that belief statements are made with reference to received values, not the values that the person explicitly expresses when making value judgments. Received values are culturally given, and they are the values that a person assumes to belong to the generalized other, who is considered to be a potential opponent when in the argumentative mode. The concept of received value was operationalized by them as the mean value rating of an attribute, based on the assumption that the evaluations made by the imagined opponent represent the majority view.

In the present study, the methodology used by Sjöberg and Montgomery was used, in order to investigate the possible tendency of double denial among respondents. Respondents were divided into three categories, depending on the value they assigned to an attribute (negative value, neutral value, and positive value), and the correlations between observed trust and probability assigned to each attribute were calculated, for each of these categories, respectively. Mean value ratings for all attributes were also calculated, in order to present a measure of received value.

It was found that a strong form of double denial (same sign of mean value rating and correlation between probability assigned to the attribute and observed trust, for value ratings with signs opposite to the sign of mean value rating) occurred for 40 out of 55 (5 organizations, 11 attributes) cases. A weak form of double denial (same sign of mean value rating and correlation between probability assigned to the attribute and observed trust, for zero value ratings) occurred in 13 of the remaining 15 cases. Thus, double denial was observed in 53 of 55 possible cases. The two cases where people answered fully in accordance with the Expectancy-Value Model were both in assessments of the Swedish Nuclear Power Inspectorate. One of the organizations for which the sum of values was much more strongly correlated with observed trust than the sum of products of beliefs and values, the Government, was interesting, due to the fact that strong double denial could be observed for all cases.

In order to see whether the different attributes could actually be grouped into different dimensions, as assumed above, some explorative factor analyses were performed. For each organization, the attribute items were subjected to a factor analysis, first with regard to beliefs about these attributes and then with regard to values. Generally, the items were grouped into two or three factors. One factor usually included the competence, efficiency, and "commitment to a goal" attributes, which might be interpreted as a general competence or professional dimension. When three factors were extracted, one factor included the "part of a power elite" and "act in self-interest" attributes, which makes it possible to speculate about a dimension of perceived corruption. The other attributes grouped into a dimension that could be conceived of as a general morality dimension, more focused on how the organization actually works in everyday life than the corruption dimension.

The main focus of the present study was to investigate the relationship between measures of predicted trust, in terms of the sum of products of beliefs and values related to attributes of trustworthiness, and observed trust. However, it is clearly also of interest to find out what other variables affected observed trust. In order to maximize the amount of variance in observed trust accounted for, regression analyses were performed, including the following possible explanatory variables.

1. Interpersonal trust (dichotomous question)
2. Observed trust in organizations (that is, except for the organization that is the dependent variable)
3. Experience with the organization
4. Knowledge of the organization
5. General trust scale A
6. General trust scale B
7. General trust scale C

Furthermore, since it was found that the sum of products of beliefs and values was not always the best predictor of observed trust, the sum of beliefs together with the sum of values was included in the regression analyses. When the sum of beliefs and/or the sum of values were better in explaining observed trust, the sum of products of beliefs and values was excluded as a possible regressor. The reason for including three scales measuring general trust in the questionnaire was to enable a validation of different trust measures.

To begin with, analyses were performed only on the basis of the share of respondents that received the correct versions of general trust scales A and C. It was found that these measures of trust were not significant independent variables in any of the final regression models, with the exception of explaining the observed trust in the Government. Here, trust scale C accounted for as much as 31.1% of the variance in observed trust ($\underline{N}$ = 59), which most likely can be explained by the fact that this scale to a large extent includes items measuring trust in politicians. Therefore, Table 6 below is based on the entire sample ($\underline{N}$ = 347) and does not include trust scales A and C.

Table 6

Amount of variance in observed trust in five organizations accounted for

Variables	Government	Advertising	E-commerce	Nuclear Insp.	Union
BV	-	-	+1.1(0.16)^1	-	33.3(0.47)
B	-	-	-	-	-
V	18.8(0.32)	+8.4(0.28)	-	20.4(0.32)	-
IT	+0.3(-0.14)^2	-	-	+1.7(-0.17)^1	-
T. gov.	-	-	-	+6.1(0.23)	+9.1(0.28)
T. adv.	-	-	18.4(0.32)	-	-
T. e-com	-	18.4(0.35)	-	+7.3(0.20)	-
T. nuclear	+6.5(0.19)	+0.5(0.11)^2	+3.8(0.20)	-	+1.7(0.15)^1
T. union	+12.7(0.25)	-	-	-	-
Experience	-	+0.9(-0.17)^1	+10.9(0.17)^1	-	+1.6(0.13)^1
Knowledge	-	+1.8(0.15)^2	+2.5(0.16)^2	+3.4(0.19)	-
T. B-scale	+3.7(-0.17)	-	-	-	-
$\underline{R}^2$ adj. (%)	42.0	29.9	36.7	38.9	45.7

Note. For each column (organization), the most potent predictor (= accounting for most variance in observed trust) is presented, followed by the second best predictor (the variable adding the most of remaining variance accounted for), and so forth until none of the remaining explanatory variables are significant in accounting for more of the variance. B stands for beliefs, V for values, IT for Interpersonal trust, and T for trust. Beta values are presented within parentheses. All regressors are significant on a $\underline{p} < 0.0005$ level, except for regressors marked with ^{1} ($\underline{p} < 0.005$) and ^{2} ($\underline{p} < 0.05$).

From the table above, it can be concluded that trust in organizations is generalizing. People who put high trust in one organization were more likely than low-trusters to also put high trust in other organizations. This is particularly true when it comes to similar types of organizations (e.g., commercial organizations, such as advertising and e-commerce firms, or organizations based on the same type of political ideology, such as the Government and the Workers' Union). Beliefs and evaluations of organizations' trustworthiness in different respects (attributes) were also important predictors of most trust ratings, which is illustrated by the explanatory power of predicted trust. A general trusting stance towards other people had some importance for trust in organizations, which is reflected in the contributions from trust scale B and the question measuring interpersonal trust. It is also plausible that this general trusting stance is reflected in the fact that trust in organizations is generalizing.

Finally, it is interesting to note the cases where experience and knowledge of the organization were important determinants of observed trust. Experience of e-commerce firms was important for levels of trust in these organizations; the more experience, the higher the trust. Knowledge was to some extent a function of experience,[4] but not entirely, which can be seen in the case of e-commerce firms, where knowledge gives a unique contribution to variance accounted for (2.5%). It is perhaps logical that knowledge is a contributing factor in explaining trust in the Nuclear Power Inspectorate, since this is the organization of which respondents reported the lowest levels of knowledge ($\underline{M}$ = 2.58, compared with e-commerce firms, $\underline{M}$ = 2.88, advertising firms, $\underline{M}$ = 3.26, the Workers' Union, $\underline{M}$ = 3.44, and the Government, $\underline{M}$ = 3.94).

Trust scales A, B, and C were validated by estimating the strength of the relationship between these scales and observed trust in organizations as well as interpersonal trust. The correlations reported in Table 7 are based on the share of respondents who received the questionnaire with correct versions of scales A and C.

[4] Correlations between knowledge of and experience of an organization were 0.24 (Government), 0.50 (advertising firms), 0.59 (e-commerce firms), 0.36 (Nuclear Power Inspectorate), and 0.51 (Workers' Union).

Table 7

Correlations between general trust scales and trust in organizations and interpersonal trust

	Gov.	Adv.	E-C.	Nucl.	Union	Interpers.
Rotter	-0.34*	-0.16	-0.07	-0.07	-0.37*	0.21
Sjöberg	-0.57***	-0.13	0.06	-0.29*	-0.39**	0.37**
Viklund (B)	-0.26*	-0.11	0.04	-0.16	0.01	0.29*

Note. N=61.

* $p < 0.05$. ** $p < 0.005$. *** $p < 0.0005$.

Generally, it can be concluded that all scales measured some aspect of interpersonal trust (correlations were on average 0.3), while mainly scale C, and to some extent also scale A, fairly well caught a political trust dimension, based on the correlations with trust in the Government and the Workers' Union. However, there were no significant correlations between the three scales of general trust and trust in advertising firms and e-commerce firms. Once again, this indicates that trust in commercial organizations to a large extent is explained by other mechanisms than the attributes of trustworthiness and scales measuring general trust traditionally referred to in trust research. The correlations between the trust scales were 0.23 (A vs. B), 0.46 (A vs. C), and 0.59 (B vs. C). Trust scale B was constructed for this questionnaire and the aggregated measure (based on the average of eight items) correlated, as mentioned above, the most with interpersonal trust.[5]

Discussion

The Expectancy-Value Model was evaluated on the basis of a comparison between different organizations and on the basis of a comparison between different measures for each organization, respectively. As to the two commercial of organizations studied, advertising

[5] The following items were significantly correlated (Pearson's r) with interpersonal trust: (1) I can trust that people who have a professional secrecy will not break that secrecy (-0.22, $p < 0.0005$), (2) If I would lose my wallet on the street, I would not see it again (0.19, $p < 0.005$), (3) One had better check the receipt after having made a purchase (0.19, $p < 0.0005$), (4) When I play a game, I expect the other players to cheat, if the opportunity is given (0.27, $p < 0.0005$), (5) I am probably more jealous in close relationships than most other people (0.11, $p < 0.05$), (6) I would not dare to ask a stranger to watch my bag for five minutes, while I'm doing an errand (0.20, $p < 0.0005$), (7) If I send an important letter by mail, I can hardly be sure that it arrives properly. Often, it is best to call the receiver just to check (0.29, $p < 0.0005$). It should be noted, however, that there was a sufficient variation across response alternatives only for items 1, 2, 6, and 7.

firms and e-commerce firms, it was shown that beliefs about and/or values assigned to attributes as explanatory variables left much of the variance in observed trust unexplained. Ratings with regard to attributes of trustworthiness were better predictors of trust in non-commercial organizations.

It was shown that the sum of products of beliefs and values about attributes of trustworthiness was a better predictor of observed trust in the Workers' Union and e-commerce firms, as compared to the sum of beliefs and the sum of values. The three measures had about the same explanatory power for the Swedish Nuclear Power Inspectorate. However, the sum of values was decidedly better in explaining observed trust in the Government and advertising firms. It should, however, be noted that correlations between the measures of predicted trust and observed trust were substantial in all cases. These findings give rise to a number of interesting points of discussion, related to the appropriateness of the Expectancy-Value Model, the way in which organizations are perceived, and the nature of trust.

Earlier research (reviews in e.g., Eagly & Chaiken, 1998; Sjöberg, 1999a) has shown that the Expectancy-Value Model is not always appropriate in attitude research. In the present study, one might wonder whether the distinction between beliefs and values was completely clear for all respondents. It should be noted that some respondents commented about this difficulty after having completed the survey. This could mean that they rated the organizations high (or low) in beliefs as well as values, which would predict high trust, even though this might not actually be the case, as reflected in ratings of observed trust. This possible misunderstanding is, however, hard to separate from the tendency of wishful thinking, which was found to exist among respondents. Correlations between beliefs and values were high, especially high for organizations in which respondents put most trust. The average correlations between beliefs and values for respondents who actually put low trust in an organization were lower and ranged from approximately 0.13 to approximately 0.20.

Moreover, the value component can be discussed, since it may not be entirely clear whether the evaluation is to be based on the attitude object or on the respondent. It could be the case that some respondents interpreted "good" (or "bad") as being good for the organization studied (or good for society), rather than good for themselves. Thus, in future research it is probably important to specify the scope of the value. It can be mentioned that in risk perception research, it has been found that it is crucial to specify whether the risk respondents are asked to rate is a risk for themselves (personal risk) or a risk to others/society (general risk) (Sjöberg, 2000). An interesting aspect is also the phenomenon of so-called labile values; that is, when people do not know what they want (Fischhoff, Slovic & Lichtenstein, 1988).

The discussed flaws of the model could possibly (at least partly) explain the finding that the phenomenon of double denial was very strong, thereby making the Expectancy-Value Model less powerful as an instrument to conceptualize trust as an attitude. Double denial occurs when people, while expressing their attitude toward an object, deny both the probability of attributes that would speak against the attitude and the value of these attributes. The presence of double denial is assumed to arise in an argumentative mode of information generation, in contrast to an analytical mode of information integration.

It is very interesting to also consider psychological explanations to why double denial occurs and how it could be related to people's perceptions of organizations. It is possible that double denial is more likely to occur when people are to evaluate an attitude object that is strongly "ideologically loaded"; that is, people evaluate the object based on a fairly strong personal ideology. This could be the case when certain political organizations (e.g., the Government) are evaluated, where a political ideological component may be important. It could also be the case for certain commercial organizations (e.g., advertising firms), where a general anti-business ideology prevents people from evaluating the organization by means of an analytical mode of information integration. A public, but not politically controlled, organization, on the other hand, such as the Nuclear Power Inspectorate, may be perceived as neutral and not as ideologically loaded as the above mentioned organizations. A perception of the Nuclear Power Inspectorate as fairly neutral could possibly partly explain why this organization was rated highest in observed trust. Even ratings of organizations that do represent a certain ideology could be (relatively) less influenced, by ideology and values, compared with the Government and advertising firms. Interesting examples are the Workers' Union and e-commerce firms.

It is possible that the aspects of values and ideologies are less salient for the other political organization (the Workers' Union) and the other commercial organization (e-commerce firms). Most working Swedes are organized in unions and, although they do not always subscribe to the same ideology as the Social Democratic Workers' Union, they might believe that unions are necessary and on the whole a positive aspect in society. The Government, on the other hand, could be substituted by another government, with a different political program. As will be discussed below, one might also speculate about important differences between e-commerce firms and advertising firms.

One might assume that the ideological component of trust is rather political in the case of the Government, which is run by people from the Social Democratic movement. This is illustrated by the fact that the political ideology component of trust was more salient in ratings of trust in the Government (Pearson's r between the political scale from left to right and trust in this organization was –0.24, $p < 0.0005$) compared with ratings of trust in the other organizations (no significant correlations, except for the Workers' Union: -0.22, $p < 0.0005$). Thus, it is possible that some respondents put low trust in the Government, based on the fact that they subscribe to a different political ideology than the official political ideology of the Government.[6] When asked about whether the Government is competent, it is plausible that the low trust is reflected in an assignment of low probability of the Government being competent. In an argumentative mode, however, the respondent might also assign low value to the Government being competent, arguing that the more competent the Government, the greater the probability that this Government will continue in office and hence consist of people with a different political ideology than that of the respondent.

Similarly, ratings of trust in commercial organizations might reflect a general attitude to business (based on an anti-business ideology), or at least an acknowledgment of the conditions under which commercial organizations operate. Consider a respondent who puts low trust in advertising firms, based on the fact that he or she dislikes the way commercial organizations operate (anti-business ideology). Such a respondent could, in line with the low trust, assign low probability to advertising firms being honest, but also assign a low value to honest advertising firms, because advertising firms that are too honest would possibly be less competitive, and less likely to maximize profit. The aspect of whether respondents interpret

[6] However, a person can put high trust in an organization, even if he or she fundamentally dislikes the official ideology of the organization. In particular, this can be true for public institutions, such as the Government, in which people feel that they must put trust, even though they would rather see that the institution would be based on another political ideology. An illustrative finding is that left-wing respondents in general put higher trust in the Government than respondents to the right, but that respondents sympathizing with the Liberal Party put higher trust in the Government than respondents sympathizing with the Left Party. This could be due to respondents in the first category being generally more trusting, but it could also be due to different conceptions of the Government. It is possible that some respondents think in terms of the government currently in power, which increases the likelihood of a trust rating influenced by political ideology, while other respondents (e.g., those sympathizing with the Liberal Party) consider the government a more timeless institution, more related to the political system as a whole than to political ideology. In accordance with this reasoning, such respondents might feel more obliged to trust the Government, as it is a prime symbol of a system that they trust and believe in.

value as valuable for them personally or valuable for the organization is particularly relevant here.

Thus, ratings of trust in organizations could reflect some ideological considerations of their main interests and raison d'être. This could, in turn, cause the strong effects of double denial. When the organization is fairly neutral, ideological considerations might be less important. Double denial could still occur, but it could then be less of an effect of ideology and more of an effect of, for example, people's striving for consistency.

It is also possible that double denial is based on respondents' initial emotional reaction when they are asked to evaluate an organization. A strong right-wing respondent's gut feeling when asked to rate his or her trust in the (left-wing) Government might be a strong sense of dislike, causing him or her to almost automatically assign a low trust rating to this organization. When asked to assign probabilities and values associated with attributes of trustworthiness of this organization, the respondent might feel a need to legitimize his or her rating of trust, causing the phenomenon of double denial. This explanation is related to the account based on ideology, but its character is less cognitive.

Attributes of trustworthiness and general trust scales were more successful components in explaining trust in non-commercial organizations (i.e., the Government, the Workers' Union and the Nuclear Power Inspectorate) compared with commercial organizations (i.e., advertising firms and e-commerce firms). Moreover, trust in commercial organizations was less correlated with measures of general trust. This indicates that traditional trust research may lack important components necessary to explain trust in commercial organizations. One component that was found to be important in explaining trust in e-commerce firms was the respondents' personal experience of these firms; the more experience, the more trust. It is possible, of course, that those who trust e-commerce firms more also more often trade with them.

One explanation of the relative failure of the Expectancy-Value Model in explaining trust in commercial organizations could be based on the attributes included in the model. It is possible that people may perceive an organization as competent and efficient, yet not trust it, because of the perception that the organization works in its self-interest rather than in public interest. However, it was found that beliefs about whether commercial organizations work in their self-interest were not related to trust in these organizations, perhaps because most respondents realize that the task of maximizing profit is one of the corner stones for commercial organizations. Thus, if a commercial organization works in its own interest to maximize profit, this is not a reason not to trust the organization, because it is only acting according to the expectations on organizations operating in a competitive environment. It could be the case, though, that some commercial organizations are perceived as working actively against the public good. Perhaps such an explanation is especially appealing in the case of advertising firms, since one could imagine that some people might perceive these firms as organizing campaigns intended to “poison people’s minds”.

In a comparison between advertising firms and e-commerce firms, it was found that the Expectancy-Value Model explained trust in the latter category better than in the first category. Values were a better predictor of trust in advertising firms. Furthermore, one might assume that advertising firms should receive higher ratings of observed trust than e-commerce firms, based on the finding that advertising firms were perceived as considerably more competent and efficient trust. However, e-commerce firms were more trusted, according to the measure of observed trust. Some form of antagonistic relationship between some of the respondents and advertising firms might explain the interesting finding that high levels of perceived competence is not always sufficient in order to gain the public’s trust.

It can be concluded that people’s trust in an organization to a large (but, depending on the organization, varying) extent is a function of their general tendency to trust (trust tends to generalize), their beliefs about the organization’s trustworthiness, and their evaluation of (attitude towards) the organization based on these beliefs. However, as discussed above, other factors may contribute to the understanding of the bases of trust in organizations, such as possibly ideology and emotional reactions. It can also be noted that earlier research (e.g., Barber, 1983), pointing towards two general dimensions as being especially strong factors of trustworthiness, was supported. These dimensions were related to perceptions of competence and morality. However, there were also signs of a third dimension, possibly related to perceptions of tendency to corruption (in a broad sense). This dimension included items about an organization being part of a power elite in society and working primarily in its own interest. These attributes have been suggested as important factors for explaining declining levels of trust in the USA (Lipset & Schneider, 1983). It is possible that they are less important in a Swedish context, where levels of corruption probably are lower. Americans’ political attitudes are, moreover, probably more influenced by a stronger focus on personal freedom and low levels of federal intervention. The European Union may evoke similar aspects in the future.

Because of the fact that results varied depending on type of organization studied, practical implications are also different depending on organization. Respondents put the highest levels of trust in the Swedish Nuclear Power Inspectorate. If this organization, as suggested above, is perceived as relatively neutral (not politically controlled or working primarily in self-interest), it could possibly be easier to reach and maintain relatively high levels of public trust. This is an important aspect to consider for discussions on nuclear policy. However, some organizations involved in nuclear policy, such as producers of nuclear power or those responsible for the management of nuclear waste, are most likely perceived as less neutral. The implications for these types of organizations (possibly including both political organizations and commercial organizations) are more complicated. For people opposing the use of nuclear power, producers of nuclear power could actually be perceived as actively working against public good, since they make a profit by providing "disliked" energy to society and are believed to expose people to serious risks. Measures to build public trust based on perceptions of trustworthiness are not likely to be sufficient in such cases.

Future research should investigate whether people's trust in organizations is related to ideology. One important insight of theory about inter-attitudinal structure is that an attitude may be formed as an implication of or a deduction from a more general attitude (ideology) that has already been formed (Eagly & Chaiken, 1998). One factor of possible importance is how much influence in society people want different organizations to have. Another interesting factor is whether people consider an organization to work for the public good or actually work against public good.

An interesting task for the future could also be to investigate people's emotional reactions to different organizations. A possible angle could be based on the concept of stereotypes. This concept is important in research on attitude formation and group perception (e.g., Mackie & Hamilton, 1993). Experimental research has investigated the effects of stereotypes on person perception. One interesting approach to person perception is based on Anderson's (1996) Information Integration Theory. Within the framework of this theory, Anderson found good fit of multiplicative models, which examined effects of perceptions of different attributes on person perception. An interesting question is whether the concept of stereotypes and experimental methodology could also be applied to research on people's trust in organizations.

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