Of Hedgehogs and Foxes: 
The Influence of Individual Cognition on Public Value

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Abstract:
This study links individual cognitive style as classified by the hedgehog-fox dichotomy originally introduced by Isaiah Berlin to the perception of businesses’ value creation for society, building on the public value approach. The empirical study is based on quantitative survey data on cognitive styles and socio-demographic characteristics of the interviewees as well as their perception of public value created by a major Swiss financial institution. Our analysis yields three major results: firstly, it confirms the significant influence of cognitive styles on the perception of public value. Hedgehogs tend to perceive public value more strongly than foxes. Secondly, the study confirms the three dimensions of public value: Institutional Performance, Moral Obligation and Political Stability. These have been identified in previous studies in a public sector environment. Our study demonstrates that the concept is also applicable in the private sector context. Thirdly, we show that the impact of cognitive style does not differ across these dimensions. This points to cognitive styles as different ways of processing new information and a corresponding difference in the intensity of value perception. This research helps to bridge the organizational macro view with the micro view of the individual by accounting for factors at the individual level in the context of an organization’s public value. The results are of relevance not only to the academic community, but also to practitioners who may use these insights to align organizational strategies and value propositions.

KEY WORDS: Business and Society, Cognition Style, Microfoundation, Public Value

CONFERENCE TRACK: Management

WORD COUNT: 6.931
1. Introduction

The financial crisis of 2008 and its ramifications throughout the world have demonstrated the society-defining role that financial institutions have gained since the end of the 20th century (Davis, 2009). It has shown again that businesses are embedded in society and their actions have consequences for the environment they operate in (Drucker, 1973; Granovetter, 1985). The damage of trust caused by financial institutions casts doubt on the predominantly used shareholder value concept and leads to a fundamental reconsideration of the purpose of business and its contribution to society.

The interdisciplinary concept of public value addresses this notion, describing managerial success in terms of creating value for the public (Moore, 1995; Meynhardt, 2009). Building on this approach, Meynhardt and Bartholomes (2011) particularly address the measurement of the value created by public sector organizations. Finding a three-dimensional model based on personal attitudes associated with a public organization, the authors provide a starting point for understanding different aspects that influence an individual’s perception and evaluation of a public organization. Importantly, their approach to public value creation is based on perception, individual evaluations and the fulfillment of basic human needs. With our study we attempt to use this measurement model in the context of a bank, hence a private sector organization.

To understand the individual characteristics that drive individuals’ perception of public value has been attempted only to a limited extent by research on public value. Gomez and Meynhardt (2012) use Berlin’s (1953/1993) conceptualization of individual cognitive styles to understand value awareness of the upper echelons of different organizations. However, their qualitative study’s generalizability is limited and does not perform systematic hypothesis testing using a deductive approach. Yet, due to the rooting of public value in individuals’ perception, cognitive factors might play an especially important role.

We are not aware of any other studies that have explicitly acknowledged this link. This paper aims to address this gap. We set out to answer the following research question: Which individual characteristics drive the perception of public value in a private sector setting? For this purpose, Tetlock’s (2005) empirical study based on Berlin’s (Berlin 1953/1993) hedgehog and fox classification of decision makers will provide a foundation to examine how different styles-of-reasoning influence public value perception. Furthermore, due to the broad definition of public value and its psychological – philosophical approach originating from emotions and perceptions of individuals (Meynhardt, 2009), we intend to confirm the three dimensions found by Meynhardt and Bartholomes (2011) in the private sector context, to confirm applicability of the framework to private organizations.

The remainder of this paper is organized as follows. Section two discusses related research on public value and cognition styles leading to the development of three guiding hypotheses in section three. Section four introduces the data sources, variables as well as validity and reliability considerations. Section five describes the methodology applied, followed by the empirical results. Section six summarizes the paper’s contribution to theory and practice. Finally, section seven concludes.

2. Theoretical Background

2.1 Public Value

The Public Value idea was first introduced in a public sector context in Moore’s (1995) book “Creating Public Value – Strategic Management in Government” which provided public managers with a concept to understand their organization’s contribution to society and manage their activities with a focus on creating value for society. The concept gained
prominence in the early 2000s, when it was taken up by think tanks close to the British government (Crabtree, 2004). The BBC declared: “the BBC exists to create public value [italics in original]” (BBC, 2004, p. 7).

According to Moore and Khagram (2004), the power of business relative to government has increased due to its accumulation of resources. Therefore, political and social actors are more and more directing demands concerning the production of social goods towards private corporations. These demands would have been directed towards the government in the past. However, nowadays companies have to actively develop legitimacy and a license to operate from the public. In other words, they have to demonstrate their public value.

Drawing on value philosophy and psychological research on basic human needs, Meynhardt (2009) sets out to develop a non-normative public value theory focusing on value content. He reaches at the following definition:

Public value is value for the public. Value for the public is a result of evaluations about how basic needs of individuals, groups and the society as a whole are influenced in relationships involving the public. Public value then is also value from the public, i.e. ‘drawn’ from the experience of the public. [. . .] Any impact on shared experience about the quality of the relationship between the individual and society can be described as public value creation. (p. 212).

This definition links public value creation to the perceived fulfillment of basic human needs. Meynhardt (2009) adopts Epstein’s categorization of basic driving forces for human behavior to fill his value notion with content (see Epstein, 2003): First, a basic need for a positive self-evaluation relates to a moral-ethical value dimension. Second, a hedonistic-aesthetical value dimension can be derived from the basic need to maximize pleasure and avoid pain. Third, the need for control over one’s environment and coherence over the conceptual system translates into a motivation for predicting cause and effect relationships and can be described as a utilitarian-instrumental value dimension. Fourth, a basic need for positive relationships and social identity leads to a political-social value dimension.

A large scale study by Meynhardt and Bartholomes (2011), reveals that empirically only three factors can be identified. Interestingly, the instrumental-utilitarian and the hedonistic-aesthetical dimension collapse into one factor. In the remainder of this paper, we will therefore work with a three-factor model as this has been empirically proven in the context of an institution’s societal performance.

In another empirical study, Meynhardt and von Müller (2013) examine how managers of Deutsche Börse AG (German stock exchange) view the societal contribution of their institution. They find that the respondents are aware of value creation in different dimensions, but focus on instrumental aspects specific to a stock exchange. They point out that the creation of public value is important for a stock exchange as it has to legitimize its role as an institution with systemic relevance for the financial system. This reasoning applies equally to other financial institutions.

2.2 Cognition Style

Despite the focus on individual perception there has not been a systematic empirical study about the individual characteristics that might drive public value assessment. The multidimensional nature of public value requires individuals to be aware of potentially conflicting values between dimensions but also between different groups. This requires a mental ability to hold multiple constructs and their relationships in one’s mind simultaneously. In managerial cognition research, such knowledge structures (Walsh, 1995) or strategic schemas have been described as “complex” as opposed to “centralized” (Nadkarni and Narayanan, 2007). These two attributes can be seen as forming the end
points of one continuum (Eden, Ackermann and Cropper, 1992). Put differently: If a cognitive frame is built around a limited number of central constructs, it tends to categorize new knowledge into these constructs and thereby limits complexity. The philosopher Isaiah Berlin has attempted to classify intellectuals in two groups based on their cognitive styles. Drawing on a fragment of the Greek Poet Archilochos he states that “The fox knows many things, but the hedgehog knows one big thing.” (1953/1993, p. 436) Hedgehogs are thinkers that tend to understand reality based on one or a few organizing principle(s), whereas foxes tend to improvise explanations more step by step using different, even unrelated explanations and stay capable of acting even when contradictions occur. So, foxes tend to have more complex cognitive frames, whereas hedgehogs are located more towards the centrality side of the continuum. In a study on political experts, Tetlock (2005) found that foxes are much better forecasters of future political and economic events, because their flexible concept of reality enables them to perceive weak signals and correct themselves when they are wrong. Gomez and Meynhardt (2012) link the fox-hedgehog concept to the debate about value awareness in top management and argue that the “ways in which executives construct social reality either enable or disable the perception of different values” (p. 93). Their empirical research confirms this hypothesis by showing that foxes tend to have a much more differentiated view of the public. However, Gomez and Meynhardt (2012) do not compare internal and external perspectives on organizations and just assume that these differ from one another. This brief review on cognitive style ideas points to differences in value awareness stemming from differences in how individuals process information and deal with complexity and contradictions.

Literature in social psychology grounds information processing and judgment mechanisms in dual-process theories. Individuals either follow a profound systematic or a superficial heuristic perspective (Chaiken, Liberman and Eagly, 1989; Chaiken and Trope 1999). Systematic processing is assumed to require intensive cognitive capabilities for a profound evaluation of message content, whereas heuristic processing concentrates on available information, following general rules based on, for example, former experiences. (Abelson, 1976; Stotland and Canon 1972). As Chaiken (1980) further examines, involvement of an individual related to the facts leads to a more differentiated view. Hence, the individual engages in systematic information processing. In contrast, individuals with no relation to the subject tend to judge heuristically, based on simple decision making rules. The more important a problem occurs to an individual, the more differentiated its evaluation. So, the level of personal involvement can also influence the cognitive processes that determine how new information is processed. Clearly, a more systematic approach to information processing rather resembles a fox-like cognition style, whereas a heuristics driven approach is closer to a hedgehog, constructing reality based on a limited number of core constructs.

This brief review of the literature shows that despite the increasing prominence of the public value concept and its rooting in individual perceptions, there has not yet been a systematic inquiry in factors at the individual level which might influence public value assessments and that cognition style with its focus on information processing and judgment is a promising candidate to fill this void.

3. Hypotheses

When leveraging the hedgehog-fox metaphor in conceptualizing the individual cognition style, we know that the hedgehogs tend to “…aggressively extent the explanatory reach of that one big thing [they know] into new domains [and] display bristly impatience with
those who ‘do not get it’” (Tetlock, 2005, p. 73), whereas foxes do not just favour one truth but acknowledge conflicting values as natural and given (Gomez and Meynhardt, 2012). This consequently suggests that hedgehogs will drift towards a stronger perception of the given reality than foxes, as long as they continue to find information supporting their cognitive framework. We assume that given the breadth and presence of information on private for-profit organizations that actively seek to gain attention of individuals, each individual has plenty of opportunities to select between information to either integrate into the existing explanatory framework or disregard. We therefore expect the tendency of a hedgehog-type cognition style to drive the perception of public value more strongly than that of being a fox:

**H1: Hedgehogs perceive the public value of an organization more strongly than foxes.**

Gomez and Meynhardt (2012) have shown that members of organizations tend to think that the contribution of their organization delivers exactly to society’s expectations. The authors focus on the upper echelons of the organization, a focus that does not fit our research interest. If their argument is transferred, however, to lower levels of the organization, it adds substantial value to understanding the relationship of individual cognition style and the perception of public value. This is also in line with the notion of organizational identification, according to which individuals derive part of their identity from the organization they work for (Ashforth and Mael, 1989). So, we hypothesize:

**H1a: Internal affiliation with an organization positively moderates the relationship between cognition style and public value perception of that organization.**

Interestingly, we have discussed these hypotheses in one interview with a senior member of the researched financial institution, and in this interview, references were made to the socialization and current place of residence of individuals with regards to their potential perception of private organizations. Socialization (the long-term effect) is expected to positively moderate the relationship between cognition style and public value perception, as cognition style is an element of someone’s personality and thus should develop in the long-term. However, the short-term dimension (current place of residence) can also be expected to moderate the relationship positively, as it drives the most recent cognition due to a higher level of involvement of individuals. Again applying the argumentation logic outlined above, we hypothesize:

**H1b: Socialization in a home country of an organization positively moderates the relationship between cognition style and public value perception of that organization.**

**H1c: Having one’s place of residence in the home country of an organization positively moderates the relationship between cognition style and public value perception of that organization.**

Finally, we intend to understand the longest time frame available for the development of cognition styles. Differently from socialization, we would expect that with growing age and maturity, people become more self-aware and go through self-reflective processes. While this most likely will be observable more frequently for foxes, we would expect this to some degree for hedgehogs as well. Such self-reflection would entail the consideration of alternative explanations and adjustments of explanatory frameworks.
**H1d:** Age negatively moderates the relationship between cognition style and public value perception of an organization.

H1 and its sub-hypotheses are summarized in figure 1.

![Relationship between cognition style and public value perception](image)

**Figure 1: Relationship between cognition style and public value perception**

In understanding the relationship between cognition style and public value we further propose to take a more differentiated view. Following the propositions of Berlin (1953/1993), Tetlock (2005) as well as Gomez and Meynhardt (2012), we assume that the world-view of foxes is much more capable of integrating potentially conflicting information. The programmatic claim that “[t]he fox knows many things, but the hedgehog knows one big thing.” (Berlin, 1953/1993, p.436) leads us to the hypothesis that foxes are capable of evaluating an organization’s contribution to society in a differentiated way along the three public value dimensions. For example, they may be able to perceive an organization as having a positive impact on social cohesion, whereas its activities are considered unethical. A hedgehog, in contrast, either thinks that an organization creates or destroys value for society, he knows “one big thing”. Hence, we assume that hedgehogs evaluate an organization’s public value similar across the three dimensions. This leads us to the following hypothesis:

**H2:** Foxes perceive the public value in a more differentiated way than hedgehogs.

Furthermore, we assume the positive correlation of the hedgehog-fox factor with public value perception (H1) to hold also for the three public value dimensions considered separately. This does not contradict H2, but just states that hedgehogs tend to evaluate public value higher than foxes in all of the three dimensions. We still believe that there is more variation in the dimensional public value scores of foxes. Assuming that hedgehogs tend to evaluate public value higher in all three dimensions, we can posit the following hypotheses:

**H3a:** Hedgehogs perceive the institutional performance dimension of public value more strongly than foxes.

**H3b:** Hedgehogs perceive the political stability dimension of public value more strongly than foxes.

**H3c:** Hedgehogs perceive the moral obligation dimension of public value more strongly than foxes.
The hypotheses relating to H2 and H3 are summarized in figure 2.

![Figure 2: Relationship between cognition style and public value dimensions](image)

4. Sample and methods

4.1 Sample selection and data collection
A survey-based dataset has been collected for this study. Data was collected over a 4-week period between April and May 2013 in an online survey. The survey was distributed in university-related social network groups of schools in Switzerland, Germany, Austria, the United Kingdom, Italy, and scholarship associations with an accumulated potential range of approximately 15,000 persons.

Also, in order to secure high levels of ‘internal’ responses, the interviewee of the selected organization agreed to circulate the survey to the employees of the respective department. Additionally, personal contacts were used to spread the survey to other departments. All participants were guaranteed confidentiality. In total, 367 participants took part in the survey, 235 participants completed the questionnaire leading to a completion rate of 64%.

4.2 Survey design
As the interest of our research lies in the perception of a sample of subjects at a given point in time, a cross-sectional design has been applied in order to receive a snapshot of the population (Fink, 2006). The survey was designed following established survey procedures (Dillmann, 2007; Mardsen and Wright, 2010), and is based on a related study by Meynhardt and Bartholomes (2011).

After the questionnaire was drafted, eight academics (senior faculty) and three practitioners provided feedback which was then incorporated in the final version.

As a broad main unit was desired, the questionnaire was developed in four languages (German, English, French, Italian) in order to cover the languages in the area of distribution. The measurement of our study is fully reliant on measures used in previous studies regarding public value as well as cognition style (Meynhardt and Bartholomes, 2011; Tetlock, 2005; Allinson and Hayes, 1996). The questionnaire is available from the authors upon request.

4.3 Dependent variable
Public value: Following Meynhardt (2009) and Meynhardt and Bartholomes (2011) we measured public value in the three dimensions of institutional performance, political stability and moral obligation, each with six items on a 5-point Likert-scale. Additionally, overall public value was measured.
4.4 Independent variable
*Cognition Style:* To capture the personal style of reasoning, we utilized the hedgehog-fox perception measure, using a thirteen-item 5-point Likert-scale (see Tetlock, 2005, p. 74). To operationalize the measure a scale was built on which a pure ‘fox’ got a 0 assigned, whereas a pure ‘hedgehog’ got a 1 assigned.

4.5 Moderating variables
*Internal affiliation:* In operationalizing affiliation, we asked respondents whether they were employed by the particular organization.
*Socialization:* Given that the selected organization was not evenly represented in countries of the respondents, we controlled for the individual cultural background by asking if the respondent was socialized in Switzerland, Austria, Germany, or in another country.
*Place of residence:* We also asked respondents about their place of residence in the last twelve months in a similar fashion.
*Age:* We also included age as a potential moderator. The categories offered were “younger than 25”, “25-35”, “36-60”, “51-75”, and “older than 75”.

4.6 Control variables
Given the individual level of analysis, we controlled for variables on an individual level:
*German mother tongue:* We wanted to be able to control for the impact of German as mother tongue (coded as dummy variable).
*Income:* As the intensity of interaction with an organization as well as the perception of organization-related communication might depend on the level of income of an individual, we controlled for it using a measure of annual income with five categories (0 to 19.999 CHF; 20.000 to 49.999 CHF; 50.000 to 74.999 CHF; 75.000 to 99.999 CHF; more than 100.000 CHF).
*Formal education:* We controlled for the level of education to address any higher education bias of the sample (no degree, secondary school/professional apprenticeship, high school, bachelor, master, PhD, postdoctoral), as there might be a positive correlation between public value recognition and a higher educational level, because education is also linked to “social benefits” for individuals and society at large (Berhmann and Stacey, 1997). That indicates that with a higher educational level, it is more likely that public value of an organization is recognized – e.g. through newspaper reading and the use of media – as the interest for economic and societal topics as well as civil participation rises (Egerton, 2002; Kingston, Hubbard, Lapp, Schroeder and Wilson, 2003; Dee, 2004; Hoskins, D’Hombres and Campbell, 2008).
*Industry affiliation:* We also collected information on the personal relatedness to the industry since on the one hand employees are confident that their industry has a positive public value since the employees see a positive value in their work themselves. On the other hand, employees might be biased because of their strong connection to their industry and therefore might have a tunnel vision regarding the outcome of their work as well as the public value of the industry. We asked respondents whether they were employed in the banking industry.
*Degree of information:* To assess the level of information a respondent had on the selected organization, we included a measure, which asks how well the respondent feels informed about the selected organization on a 5-point Likert-scale, ranging from ‘very weak’ to ‘very strong’.
*Gender:* We also controlled for potential gender differences in public value assessments.

4.7 Validity and reliability
We applied measures to mitigate validity and reliability concerns: Given the level of analysis, both, dependent and independent variables had to be collected from the same source, which is why the data is subject to potential common method bias. Yet, for this potential problem, several remedies exist (Podsakoff, MacKenzie, Lee and Podsakoff, 2003). Spector (2006) suggests that dealing with potential biases involves their identification and control to rule them out as explanations for observed relationships using a variety of design strategies.

Second, our results could be subject to known survey related biases, such as a non-response bias, a late response bias and response bias. However, to account for the latter, we introduced all public value questions mentioning that only the ‘very personal opinion’ of the respondents was asked, in order to avoid perceptions of right or wrong answers. Further, we ensured confidentiality of results.

5. Analyses and results

5.1 Validation of the public value construct
The factor structure of public value as described in the literature review has been demonstrated in the context of a public sector organization (Meynhardt and Bartholomes, 2011). We conducted an exploratory factor analysis to determine whether individuals perceive the public value of a bank along the same lines. We follow Meynhardt and Bartholomes (2011) and use principal axis factoring as the extraction method and chose a varimax rotation with Kaiser normalization. We calculated Cronbach’s Alpha for the items measuring public value. An Alpha of .947 indicates a high level of internal consistency and reliability (Bland and Altman, 1997). Additionally, we conducted a sampling adequacy measurement using the Kaiser-Meyer-Olkin criterion. A value of .924 indicates the sample’s adequacy and suitability to conduct a factor analysis (Kaiser and Rice, 1974).

To determine the number of factors and interpret them, we relied on the Kaiser criterion in combination with a scree plot and theory-driven content considerations for interpreting the resulting factors. In the course of the factor analysis we deleted five items. An item was deleted when it did not have a factor loading of clearly more than .5 on any of the extracted factors as proposed by Baggozzi and Yi (1988). The relatively small number of deleted items appears surprising at first sight. However, in our survey, we used a questionnaire that was already adjusted according to the item deletions by Meynhardt and Bartholomes (2011). Running the factor analysis again with the remaining 19 items, the following rotated factor matrix emerges (see table 1). The three factors that emerge can be interpreted as follows. The wording is adopted from Meynhardt and Bartholomes (2011), as their factor structure could be fully validated:

Factor 1: Institutional Performance: In this factor, items linked to the performance of the organization, such as efficiency, service quality, its reaction to external criticism and answering customer needs fall together. It combines two dimensions that were considered distinct in the theory, namely instrumental-utilitarian and hedonistic-aesthetical.

Factor 2: Political Stability: This factor contains items that are associated with an organizations contribution to social cohesion and the quality of life in a given society. Also, items asking for the contribution of the organization on a regional level fall in this category.

Factor 3: Moral Obligation: The third factor includes items that ask for the moral-ethical appropriateness of an organization’s activities. One example is: “The organization treats the individual in a fair and just manner”.

One finding warrants attention: We can see that the dimensional global items that ask for an “all in all” evaluation load very strongly on the three factors. Therefore, it seems appropriate to use these items in the regression analysis that follows. This is in line
with the recommendations of Wanous et al. (1997) and Nagy (2002) concerning single-item measures.

### EFA Results

<table>
<thead>
<tr>
<th>Items</th>
<th>Institutional Performance</th>
<th>Moral Obligation</th>
<th>Political Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ... stands for high quality of its products/services.</td>
<td>.738</td>
<td>.210</td>
<td>.166</td>
</tr>
<tr>
<td>2 ... works efficiently in an economic sense.</td>
<td>.621</td>
<td>.155</td>
<td>.151</td>
</tr>
<tr>
<td>3 ... convinces through its good products and services.</td>
<td>.645</td>
<td>.276</td>
<td>.251</td>
</tr>
<tr>
<td>4 ... has a good reputation.</td>
<td>.532</td>
<td>.101</td>
<td>.353</td>
</tr>
<tr>
<td>5 ... strives for customer satisfaction in a credible way.</td>
<td>.638</td>
<td>.107</td>
<td>.355</td>
</tr>
<tr>
<td>6 ... is a corporation that can be trusted.</td>
<td>.624</td>
<td>.264</td>
<td>.446</td>
</tr>
<tr>
<td>7 ... meets the needs of its customers to a high degree.</td>
<td>.797</td>
<td>.206</td>
<td>.167</td>
</tr>
<tr>
<td>8 ... does „all in all“ good work in its core business.</td>
<td>.773</td>
<td>.212</td>
<td>.199</td>
</tr>
<tr>
<td>9 ... contributes to a feeling of community in the country that I live in.</td>
<td>.174</td>
<td>.810</td>
<td>.078</td>
</tr>
<tr>
<td>10 ... is an „engine“ of federalistic cohesion in the country that I live in.</td>
<td>.151</td>
<td>.861</td>
<td>.140</td>
</tr>
<tr>
<td>11 ... deals in the interest of regional businesses.</td>
<td>.271</td>
<td>.538</td>
<td>.384</td>
</tr>
<tr>
<td>12 ... contributes to solidarity in my country.</td>
<td>.118</td>
<td>.644</td>
<td>.426</td>
</tr>
<tr>
<td>13 ... is a reliable cooperation partner on a regional level.</td>
<td>.355</td>
<td>.533</td>
<td>.325</td>
</tr>
<tr>
<td>14 ... contributes „all in all“ to social cohesion in the country that I live in.</td>
<td>.180</td>
<td>.860</td>
<td>.164</td>
</tr>
<tr>
<td>15 ... acts morally in its environment.</td>
<td>.489</td>
<td>.210</td>
<td>.590</td>
</tr>
<tr>
<td>16 ... treats the individual in a fair and just manner.</td>
<td>.429</td>
<td>.271</td>
<td>.591</td>
</tr>
<tr>
<td>17 ... does not only pursue its own interests.</td>
<td>.129</td>
<td>.227</td>
<td>.574</td>
</tr>
<tr>
<td>18 ... does not accept morally condemnable business practices.</td>
<td>.248</td>
<td>.220</td>
<td>.746</td>
</tr>
<tr>
<td>19 ... acts „all in all“ in a decent manner.</td>
<td>.458</td>
<td>.203</td>
<td>.711</td>
</tr>
</tbody>
</table>

Table 1: Rotated factor matrix
5.2 Hypothesis testing

An Ordinary least squares regression with robust standard errors is applied to test the hypotheses and to achieve unbiased estimates.

Table 2: Regression table H1 Cognition style – public value

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognition style</td>
<td>3.068***</td>
<td>3.302***</td>
<td>2.647**</td>
<td>2.622**</td>
<td>2.651**</td>
</tr>
<tr>
<td></td>
<td>[2.843]</td>
<td>[3.122]</td>
<td>[2.566]</td>
<td>[2.485]</td>
<td>[2.466]</td>
</tr>
<tr>
<td>Internal affiliation</td>
<td>1.639***</td>
<td>0.876**</td>
<td>0.889**</td>
<td>0.901***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[4.136]</td>
<td>[2.114]</td>
<td>[2.176]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry affiliation</td>
<td>-0.372*</td>
<td>-0.220</td>
<td>-0.201</td>
<td>-0.166</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[-1.668]</td>
<td>[-1.035]</td>
<td>[-0.938]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place of residence</td>
<td>0.578***</td>
<td>0.548**</td>
<td>0.559***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[3.280]</td>
<td>[3.108]</td>
<td>[3.141]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>German mother tongue</td>
<td>-0.632***</td>
<td>-0.669***</td>
<td>-0.638***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[-2.796]</td>
<td>[-2.912]</td>
<td>[-2.759]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of information</td>
<td>0.214***</td>
<td>0.228***</td>
<td>0.231***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[2.674]</td>
<td>[2.790]</td>
<td>[2.777]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal education</td>
<td>-0.068</td>
<td></td>
<td></td>
<td>-0.047</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[-1.044]</td>
<td>[-0.649]</td>
</tr>
<tr>
<td>Age</td>
<td>-0.103</td>
<td>-0.081</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>[-1.011]</td>
<td>[-0.654]</td>
<td></td>
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</tr>
<tr>
<td>Income</td>
<td>-0.028</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td>[-0.476]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.632</td>
<td>0.464</td>
<td>0.543</td>
<td>1.020</td>
<td>0.913</td>
</tr>
<tr>
<td></td>
<td>[1.034]</td>
<td>[0.779]</td>
<td>[0.827]</td>
<td>[1.338]</td>
<td>[1.175]</td>
</tr>
<tr>
<td>Observations</td>
<td>239</td>
<td>239</td>
<td>237</td>
<td>237</td>
<td>235</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.031</td>
<td>0.036</td>
<td>0.254</td>
<td>0.255</td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.102</td>
<td>0.102</td>
<td>0.246</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Robust t-statistics in brackets

*** p<0.01, ** p<0.05, * p<0.1

In table 2 H1 is tested. It can be confirmed at a 1%-5% significance level. Hence, the regression analysis confirms a positive relationship between the cognition style ‘hedgehog’ and public value. The model is amended by several control variables from which ‘Internal affiliation’, ‘Place of residence’, ‘German mother tongue’ and ‘Degree of information’ turn out to be significant. The overall explained degree of variation of the model is 0.25 [adjusted R²].

Also, we find that the relationship between the perceived public value and the cognition style is positively moderated if the participant is internally affiliated with the private organization. The result is statistically significant at the 1%-5% level. The explained variation of the moderated model is 0.25 [adjusted R²]. Therefore, H1a can be confirmed. This supports according statements in the expert interview.

Further, we find that the moderation of the cognitive style through the socialization does not hold when additional variables are added to the model (Internal affiliation, Industry affiliation, Place of residence, German mother tongue, Degree of information, Formal education, Age and Income). Hence, the hypothesis H1b has to be rejected. However, the second theorized moderation effect through proximity to an organization holds at the 1% significance level as the ‘place of residence’ positively moderates the effect of the cognition style on the perceived public value. Hence, hypothesis H1c can be confirmed. This opens up potential avenues for theorizing on the effect of the external environment on the persistence of cognitive styles. The theorized moderation of the cognition style by the age of the participant (H1d) has to be rejected.

To sum up: hypotheses H1, H1a and H1c can be confirmed, whereas the hypotheses H1b and H1d have to be rejected.
We also find that participants with the cognition style ‘fox’ do not perceive the public value of private organizations as more differentiated (the degree of differentiation was operationalized as the covariance of the three public value dimensions). Therefore, H2 has to be rejected (see table 3).

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Var PV</th>
<th>(2) Var PV</th>
<th>(3) Var PV</th>
<th>(4) Var PV</th>
<th>(5) Var PV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognition style</td>
<td>-0.166</td>
<td>-0.184</td>
<td>-0.131</td>
<td>-0.275</td>
<td>-0.225</td>
</tr>
<tr>
<td></td>
<td>[-0.306]</td>
<td>[-0.334]</td>
<td>[-0.226]</td>
<td>[-0.467]</td>
<td>[-0.386]</td>
</tr>
<tr>
<td>Internal affiliation</td>
<td>-0.242</td>
<td>-0.061</td>
<td>-0.102</td>
<td>-0.096</td>
<td>-0.096</td>
</tr>
<tr>
<td></td>
<td>[-1.490]</td>
<td>[-0.345]</td>
<td>[-0.579]</td>
<td>[-0.390]</td>
<td>[-0.390]</td>
</tr>
<tr>
<td>Constant</td>
<td>0.797**</td>
<td>0.825***</td>
<td>0.683**</td>
<td>1.055**</td>
<td>0.874**</td>
</tr>
<tr>
<td></td>
<td>[2.547]</td>
<td>[2.617]</td>
<td>[1.989]</td>
<td>[2.441]</td>
<td>[2.010]</td>
</tr>
<tr>
<td>Observations</td>
<td>239</td>
<td>239</td>
<td>237</td>
<td>237</td>
<td>235</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.004</td>
<td>0.049</td>
<td>0.067</td>
<td>0.07</td>
<td></td>
</tr>
</tbody>
</table>

Robust t-statistics in brackets
*** p<0.01, ** p<0.05, * p<0.1

Table 3: Regression table H2

We also find that participants with the cognition style ‘fox’ do not perceive the public value of private organizations as more differentiated (the degree of differentiation was operationalized as the covariance of the three public value dimensions). Therefore, H2 has to be rejected (see table 3).

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) PV Institut.</th>
<th>(2) PV Institut.</th>
<th>(3) PV Institut.</th>
<th>(4) PV Institut.</th>
<th>(5) PV Institut.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognition style</td>
<td>2.151**</td>
<td>2.279***</td>
<td>1.853**</td>
<td>1.808**</td>
<td>1.871**</td>
</tr>
<tr>
<td></td>
<td>[2.427]</td>
<td>[2.654]</td>
<td>[2.629]</td>
<td>[2.747]</td>
<td>[2.948]</td>
</tr>
<tr>
<td>Internal affiliation</td>
<td>1.101***</td>
<td>0.779**</td>
<td>0.778**</td>
<td>0.811***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[3.313]</td>
<td>[3.540]</td>
<td>[3.518]</td>
<td>[3.640]</td>
<td></td>
</tr>
<tr>
<td>Industry affiliation</td>
<td>-0.123</td>
<td>-0.089</td>
<td>-0.08</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[-0.702]</td>
<td>[-0.522]</td>
<td>[-0.475]</td>
<td>[0.006]</td>
<td></td>
</tr>
<tr>
<td>Place of residence</td>
<td>0.125</td>
<td>0.113</td>
<td>0.133</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.910]</td>
<td>[0.825]</td>
<td>[0.964]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.385***</td>
<td>2.265***</td>
<td>2.545**</td>
<td>2.876**</td>
<td>2.662***</td>
</tr>
<tr>
<td></td>
<td>[4.582]</td>
<td>[4.515]</td>
<td>[4.569]</td>
<td>[4.451]</td>
<td>[4.044]</td>
</tr>
<tr>
<td>Observations</td>
<td>239</td>
<td>239</td>
<td>237</td>
<td>237</td>
<td>235</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.028</td>
<td>0.094</td>
<td>0.157</td>
<td>0.162</td>
<td>0.165</td>
</tr>
</tbody>
</table>

Table 4: Regression table H3a Regression table institutional performance

From here, the analysis proceeds to the three public value dimensions. Our findings show that the positive relationship between a hedgehog-type cognition style and public value assessments also holds for the institutional performance, the political stability and the moral obligation dimension, all highly significant at the 1%-5% level (see tables 4-6). Hypotheses


$H3a$, $H3b$ and $H3c$ can be confirmed. Hedgehogs perceive the public value along all three public value dimensions more positively than foxes.

5.3 Robustness

*Heteroscedasticity:* To test for heteroscedasticity a Breusch-Pagan (Cook-Weisberg) test is performed. The $H_0$ of homoscedasticity has to be rejected at the 1% level. Hence, we control for heteroscedasticity by using robust standard errors (Stock and Watson, 2006).

*Multicollinearity:* To test for potential multicollinearity among the independent variables we compute the variance inflation factors (VIF). The VIF for all variables used in the regressions are under 2.5 (mean 1.46). Hence, we can exclude multicollinearity within the regressed variables (Stock and Watson, 2006).

*Functional form:* To test if the linear model is the best fit the Ramsey RESET test is performed. The $H_0$ cannot be rejected. Hence, functional form misspecification seems not to be a problem (Stock and Watson, 2006).

Finally, testing for correlation reveals only a few values above the 0.3 level, meaning that there are no serious estimation biases through correlation.

6. Discussion

6.1 Contribution to Theory

The first and most important finding is the significant influence of cognition style on the perception of public value. In explaining this result, it is important to note that the differentiation between hedgehogs and foxes roots in personality and different character traits that are unlikely to be altered by short-term updated information or events. Therefore, in case of events that would have the potential to change the perception of public value, hedgehogs may ‘lag behind’ with adaptations, as they will only slowly adjust their explanatory conceptual model. Before the recent happenings in the financial sector, banking in general and Swiss banking in particular have been known for reliability and a positive contribution to the overall wealth of the Swiss population. This long-term established perception of the banking industry may not yet have been altered for hedgehogs despite recent events surrounding the financial crisis. So, differences in public value assessments might stem from a time lag, as the hedgehog is less likely than the fox to quickly re-evaluate his or her perception of the public value towards a more negative view, compared to the previous rather positive evaluation.

Controlling for the different moderators – internal affiliation, place of residence, socialization and age - confirms our initial assumption that people working in an organization seem to have a more positive perception of their employer’s public value than external ones, possibly because they identify with their employer and view it in a more positive light. Age, in contrast, was a negative but not significant moderator in this relationship. This is counter-intuitive, but might be explained with the fact that the expected level of self-reflection is less pronounced (or even not existent) than assumed.

Our findings on the moderation of socialization (the long-term effect) and residency (the short-term dimension) were especially telling and also somewhat counter-intuitive. While residency was found to positively moderate the relationship between cognitive style and public value, socialization was not. In our survey, maintaining residency in Switzerland had a positive influence on the perception of public value, while the place of socialization – e.g. being raised in Germany – did not. It appears that perceptions of public value – depending on the cognitive style – may actually be altered in the short term. This opens interesting new avenues for highly practically relevant research.

Secondly, this paper advances the concept of public value by showing that it is applicable also in a private sector context. The results of our factor analysis confirm this
notion. Our study shows that instrumental-utilitarian, moral-ethical, and political-social dimensions build up the factors along which individuals evaluate a private sector firm’s public value. As found in previous work (Meynhardt and Bartholomes, 2011), we could confirm that the hedonistic-aesthetical dimension is not a distinct and isolated property linked to a private organization. This provides a clear response to previous work that raised the question “whether or not this is a specific characteristic of public organizations” (Meynhardt and Bartholomes, 2011). Therefore, this paper shows that fundamentally, the psychological mechanisms that define public value are the same in private organizations as in public ones. Hence, there is empirical support for employing the public value approach also in a private sector context.

Thirdly, we are able to show that perceptions of public value do not differ along the dimensions depending on cognitive style. This might be interpreted with the broad concept and roots in emotions of all factors, as mentioned above.

However, the finding of our study that individual characteristics have a strong impact on public value may challenge the notion of public value as a performance indicator that previous work has sought to establish. In summary, this study helps in bridging the organizational macro view with the micro view of the individual by accounting for factors at the individual level in the context of public value. Therefore, our work is also relevant to the study of microfoundations as the object of inquiry in organizational management, a field that has gained pace in the academic community in recent years (Felin, Teppo and Foss, 2006; Barney and Felin, 2013). Our study is a first step towards a microfoundation of both corporate reputation as well as the role of business in society. Here, public value with its focus on the individual can bridge some gaps and open up new ways of theorizing.

6.2 Contribution to Practice

Our study also provides significant insights for practitioners. The ability to apply public value theory in the private sector allows businesses such as banks, as well as policymakers, to obtain a more differentiated view on what makes an organization valuable to society. While measuring an organization’s contribution to societal goals is inherently difficult due to diverging interests and agendas within a population, measuring public value can make a contribution in developing more comparable measurements also in the private sector.

Knowledge of value assessments among different societal groups is also crucial for private organizations in order to develop more targeted strategies to increase public value in the future. For example, our study showed that respondents who felt less informed about the bank attributed a lower public value to the company than those who felt well informed. For decision makers in private (and also public) organizations, this could mean that external campaigns may be effective ways to achieve a higher assessment of the bank’s public value. Also, the finding that public value assessments are contingent upon cognition style has implications for practice as it shows that managers and corporate communicators are facing the challenge of communicating efficiently both to hedgehogs as well as foxes. These insights are also highly important for the strengthening of corporate reputation which can be an important asset in competitive struggles (Rindova, Williamson, Petkova and Sever, 2005).

The significance of public value for organizations provides an incentive e.g. for human resource managers to align organizational strategies, adjust value propositions based on public value insights and to use public value as a vehicle to internalize “profit-for-purpose” rather than merely managing sustainability through non-core activities and public relations management.
7. Conclusion

As mentioned at the outset of this paper, in the aftermath of the global financial crisis starting in 2008, there have been growing demands for accountability and ethical behavior of private organizations, especially with regards to the banking industry. Public discourse has largely focused on the negative externalities created by financial institutions and the inherent weaknesses in the financial system that are driving these deficiencies. The interdisciplinary concept of public value seeks to respond to these challenges by providing a more tangible way of capturing the value that organizations – public and private – create for the public. This paper has advanced the theory of public value by examining the influence of individual cognition styles on the perception of public value and by applying the framework in a private sector context.

The empirical study carried out for this paper results in the following three main findings that form the contribution of this research: First, it confirms the significant influence of individual level factors in the form of cognitive styles on the perception of public value. Secondly, building on previous work on public value in the public sector context, it shows that the public value concept with its three empirical dimensions is also applicable in the private sector context. Thirdly, it shows no differentiation between the dimensions of public value depending on cognitive styles pointing to the dimensions’ neutrality concerning information-processing patterns. In order to overcome potential limitations due to common method bias, future research could engage in method triangulation, operationalizing cognition style using a qualitative approach (such as Gomez and Meynhardt, 2012) or even an experimental setting.

The results of this paper highlight the importance of individual level factors on public value perception and are of relevance not only in the academic community, but also to practitioners who may use these insights to align the strategies and value propositions of their organizations.
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References


