*Corresponding author: Heidi Rapp Nilsen, NORCE Norwegian Research Centre AS, P.O. 22 Nygårdstangen, Bergen 5838, Norway
E-mail: heidi.r.nilsen@ntnu.no

MANAGEMENT | RESEARCH ARTICLE

Lost in motivation? The case of a Norwegian community healthcare project on ethical reflection

Heidi Rapp Nilsen[1]* and Toril Ringholm[2]

Abstract: Innovations are needed to meet increasing challenges in public healthcare, and type of motivation has been identified as a pivotal factor for the success of an innovation. New public management crowd out the intrinsic motivation of employees which has resulted in a quest for more self-reliant service providers. This paper takes the opposite point of departure asking if intrinsic motivation can be at the cost of the public purpose of innovations. This paper is a case study of 180 municipalities whom chose to participate in the largest healthcare project on ethical reflection in Norway. Thousands of community health-care workers performed innovative activities by establishing ethical reflection on a regular basis. We have investigated if the municipalities' type of motivation is of importance for the type of results of the project, and how the results correspond with the policy signals on the very purpose of establishing ethical reflection in health care. We find that intrinsic motivation of enhanced competence crowds out the extrinsic motivation and public value of patient satisfaction. The link in the program theory between objective and purpose is too weak to induce a better fulfilment of the purpose.

ABOUT THE AUTHORS

Heidi Rapp Nilsen works as a postdoctoral researcher at NTNU, the Norwegian University of Science and Technology. She has a fractional appointment at the research institute NORCE, as a senior researcher, which this paper is part of. Heidi's research interests are on the premises of our economic and social systems, as values, ethics and motivation. Her main contributions are on consequences of these, often, implicit values, and resulting practices on the global ecological foundation.

Toril Ringholm is an Associate Professor at UiT The Arctic University of Norway. She specializes within the field of planning and regional research and has led several research projects focusing on public sector innovation, democracy and governance. A special attention has been paid to the level of municipalities, and she has contributed to this field in many books, research papers and as a lecturer at several universities.

PUBLIC INTEREST STATEMENT

The motivation of the employees that performs public sector innovation is important for the outcome of the innovation. Therefore, the public authorities and others that initiate innovation programs in order to enhance public value, needs to pay thorough attention to the balance between the intrinsic and extrinsic motivation that drives participation in such programs.

These are the findings in a case study of 180 municipalities who participated in a large healthcare project on ethical reflection in Norway. We ask if the municipalities' type of motivation is important for the type of results, and how the results correspond with the policy ambitions on ethical reflection in health care.

We find that intrinsic motivation of enhanced competence crowds out the extrinsic motivation and the public value of patient satisfaction. The objective and purpose of the program was too weakly connected to induce a better fulfilment of the purpose.

Subjects: public & nonprofit management; critical management studies; organizational studies

KEYWORDS: intrinsic motivation; extrinsic motivation; crowding out; program theory; innovation

1. Introduction

The public sector in Norway, and many other industrialized countries, face growing challenges with giving good and adequate services in times of increasing demands, decreasing finances and the legacy of New Public Management-dominated logic. Innovation is therefore high on the public sector agenda these days, and local as well as central authorities strive to develop new and valuable solutions. Education and knowledge development is regarded as an important tool for better service performance, and for motivating the service producers to comply with the overall policy ambitions. We do, however, have little knowledge of the connection between different forms of motivation and the value compliance of the public servants.

Community healthcare practice is a major public sector challenge. The number of people needing healthcare will rise, as will the complexity of their problems with dementia, psychical illness, and minority backgrounds. Ethical dilemmas are involved in many of these challenges, for example, patient protection in terms of autonomy and advocacy for vulnerable groups (Racher, 2007). Healthcare professionals need to recognize everyday ethical issues in their care work and have the confidence to face them in appropriate ways also when the manual or guidelines do not address the particular situation they are dealing with. This is the case even if the issues present themselves as rather banal (Söderhamn, Kjøstvedt, & Slettebø, 2015; Solum, Slettebø, & Hauge, 2008).

Previous research has established that a certain degree of intrinsic motivation is necessary for innovative actions to take place. An intrinsic-motivated activity is defined to be valued for its own sake, in the absence of an external reward, as well as being self-sustained (Calder & Staw, 1975; Deci & Ryan, 1985). Intrinsic motivation is an inner force driven by the challenges the work itself gives and is realized independent of extrinsic consequences. On the other hand, extrinsic motivation occurs when there is an obvious instrumental connection between behavior or activity, and a form of reward. The reward can range from money and fringe benefits to praise, reputation and customer satisfaction. The combinations of these two types of motives often involve the risk of the extrinsic motivation crowding out the intrinsic motivation. The activity is then only performed to receive the award, and the activity itself loses its inherent value (Cooper & Jayatilaka, 2006; Roberts, Hann, & Slaughter, 2006). This has been one of the prominent critiques against NPM-based reward systems. However, the overall question of this paper is put the other way around; does intrinsic motivation crowd out extrinsic motivation, and consequently crowd out the positive extrinsic consequences for the recipients of public service?

The question is timely, because the research on ethical reflection has not, so far, critically questioned the difference between effect for the employee and effect for the patient or her/his next of kin. The focus has primarily been on results and effect for the employees, typically reporting results as enhanced competence, better handling of ethical challenges and better employee cooperation (Magelssen, Gjerberg, Lillemoen, Førde, & Pedersen, 2016b; Magelssen, Gjerberg, Pedersen, Førde, & Lillemoen, 2016a; Tønnessen, Lillemoen, & Gjerberg, 2016). These are of course positive internal results and some results, as enhanced competence in systematic ethical reflection among employees, can indeed be a premise for patients experiencing a positive change in healthcare service. Is it, however, possible that the positive effects of this innovative activity primarily are found internally in the organization, and not among the recipients of the public healthcare service? And, do the concepts of intrinsic and extrinsic motivation offer an explanatory platform to answer this question?

cogent · business & management

2. The ethics project and the research questions

We pursue this question by analyzing a large national project in Norway carried out by the Norwegian Association of Local and Regional Authorities (KS): "Cooperation for enhancing ethical competence", hereafter the Ethics project. It lasted from 2007–2015, and all 428 municipalities in Norway were invited to participate for a two-year period. The purpose of the Ethics project was to enhance health-care patients' experience of integrity and dignity. This was to be achieved through strengthening ethical competence among community health-care personnel in Norway, through establishing ethical reflection on a structured and regular basis (KS, 2014; Nilsen, Antonsen, Normann, Kirkhaug, & Tønnessen, 2015). Altogether 243 municipalities chose to participate in the Ethics project. The project involved more than 2000 community health-care workers.[1] These municipalities performed innovative activities by establishing an ethical reflection on a regular basis. They did not receive extra funding for bygone time for this activity. In this paper, we investigate the motivation for the municipalities to participate in the Ethics project. More specifically, we ask if their partaking was intrinsically or extrinsically motivated. The overall question of the analysis is: *Was the Ethics project an appropriate tool for giving better services by strengthening the skills of the employees?*
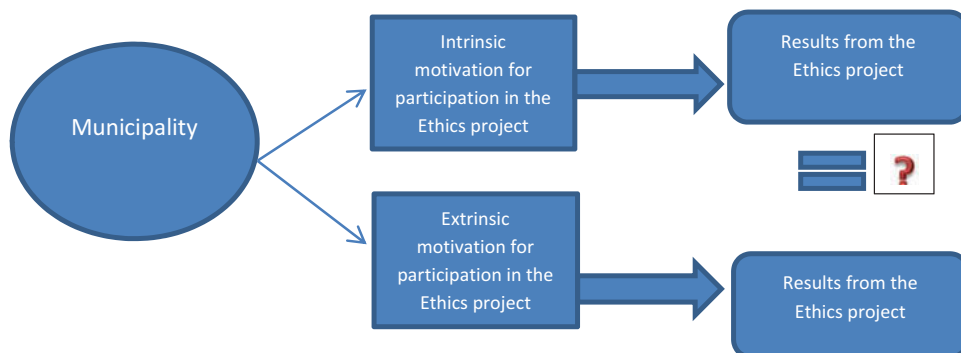
We address this issue by a set of research questions. Firstly, we ask how the balance between intrinsic and extrinsic motivation was among the municipalities that participated. To answer this question, we look into the motivation that the municipalities had for implementing the Ethics project. One form of intrinsic motivation could, for instance, be a primary need of competence, while an aspect of extrinsic motivation could be a customer or patient satisfaction. We will assume that most of the municipalities will display a combination of motivations. However, the overall pattern of expressed motivating factors will be a strong indication of the relative weight of the two forms.

Secondly, we ask how the municipalities' motivations correspond with the policy signals on the very purpose of these innovative activities. The purpose of strengthening competence and practice in ethical reflection is to provide better health-care services to patients or to the next of kin (Eide & Aadland, 2012). The purpose of the Ethics project was specified even more with regard to how the services were to be improved: by enhancing health-care patients' experience of integrity and dignity. As the municipalities can be motivated by several factors, the way that these ideas are implemented, does not necessarily comply with the centrally defined policy signals.

Thirdly, we pose the question whether the results that the municipalities achieved during the project were in accordance with their primary motivations. The answer to this will help us to illuminate Figure 1, whether the motivation is of importance for the results that are being achieved, or if it is in fact of lesser importance.

This paper generates valuable information with regard to policies, planning, and implementation of future innovative practices in the public sector. The analysis shows that it is necessary to critically question why an innovation is to be implemented, to differ between objective and

Figure 1. Analytical approach.

purpose, and to not assume that the program theory automatically leads to the purpose. In particular, this paper enhances our knowledge on the motivation for strengthening ethical competence and practices in health-care services.

The next chapter presents the theoretical background and introduces the analytical framework of this paper, followed by a short description with more facts and figures on the Ethics project. The chapter on methodology describes the chosen case-study method and the qualitative data to answer the research questions, as well as limitations on data and method. The last chapters present the results, analysis and concluding remarks.

3. Theoretical background

The motivational bases for public services have been a research theme for a while (Perry & Wise, 1990; Le Grand, 2010). It has, however, not to a great degree been investigated explicitly with regard to public innovation. A recent paper shows that the initial motivation of a public innovation is a very strong driving force for having the motivation carried out (Ringholm, 2017). Innovation can have different connotations. Our understanding is based on the classical definition given by Schumpeter in 1934 that defines innovation as novelties that are new to the context, both products and organization (Schumpeter, 1934/1975). More refined classifications have been introduced later, and can be summed up as process innovation, administrative process innovation, technological process innovation, product and service innovation, governance innovation and conceptual innovation (De Vries, Bekkers, & Tummers, 2015). The systematic use of ethical reflection is a process innovation that also carries the ambition of leading to service innovation. If the ambition is fulfilled, is a question that can only be answered in the long run. However, the alloy of extrinsic and intrinsic motivation can be an important indicator of whether the municipalities are on track in this regard. In a wider perspective, the knowledge is also suited to shed light on the dynamics, possibilities and obstacles, involved in enhancing the operational capacity for creating public value.

One strand of the critique against New Public Management is developed in the line of thought that led to the concept of service-dominant logic (Vargo & Lusch, 2008), a concept that seems to be gaining interest in both practice and research on public sector service. The service-dominant logic asks for service providers of a more self-reliant character than the logic of NPM does, also in questions that has to do with the ethics of the service-giving situation. This is closely coupled to the issue of public value (Benington & Moore, 2011; Hartley, Alford, Huges, & Yates, 2015; Moore, 1995, 2013). The concept was developed in order to draw attention to the role of public managers in actually shaping the values that public services and development convey, and not only as value-free clerks for the policy that was being outlined by the political bodies (Moore, 1995). In recent literature, the concept is increasingly being drawn into the discussion of innovation and renewal of the public sector, based on a recognition of the importance of the public organization as a whole working in the same direction in order to create service innovation (Moore & Benington, 2011; Hartley et al., 2016). Creating public value, thus, is seen as distinctively different from creating private value (Benington & Moore, 2011, p. 4–11). As public value is what we want from public funding, and as we normally find ambitions of public value embedded in public innovation initiatives, it is certainly relevant to ask the question of whether this is actually the output.

The importance of intrinsic motivation for innovation has been well documented within organizational behavior research and the field of social psychology (Amabile, 1988; Frese, Teng, & Wijnen, 1999; West, 1987) whereas the role of extrinsic motivators for innovation is less clear (Harrison, Neff, Schwall, & Zhao, 2006). It has been suggested that intrinsic and extrinsic motivation might serve different functions; intrinsic motivation might be linked to work on a specific task and the desire for this intellectual challenge, whereas extrinsic motivation might affect the choice of task or implementation strategy (Mumford, 2003; Sauermann & Cohen, 2008). Moreover, it has been suggested that people in public organizations are more altruistic than people in private sector but as Chen and Hsieh (2015) shows, certain types of extrinsic motivation is also prevalent among public sector employees, like job security.

The debate on intrinsic versus extrinsic motivation also constitutes an important part of the debate between the long-lasting regime of neoclassical economics, also known as mainstream economics, and other heterodox schools of economics. Mainstream economics have had to come a long way from characterizing people and employees as homo economicus, which are only extrinsically motivated and dependent on rewards, to recognizing other human values and motivations (Nilsen, 2010). The existence of intrinsic motivation is now recognized also within mainstream economics and research, but it is often left aside because it is difficult to analyze and control (Osterloh & Frey, 2000; Williamson, 1985). Other economic schools with imperative contributions especially from psychology but also from feminist perspectives in social sciences, have managed to integrate intrinsic motivation in their analysis as well as identifying different combinations and premises for intrinsic and extrinsic motivation (Folbre & Nelson, 2000; Gilg & Barr, 2006; Sutinen & Kuperan, 1999). This development is also a critique of seeing humans as only utility-maximizing models of homo economicus, whereas other existing human ethical characteristics as deeds and duty are ignored (Daly & Cobb, 1989; Nilsen, 2010).

There is now an interdisciplinary understanding that combinations of and correlations between intrinsic and extrinsic motivation often involve the concepts of crowding-in and crowding-out. A positive effect on the intrinsic motivation of an external intervention or institution is called crowding-in. A negative effect on intrinsic motivation is called crowding-out, an effect which has been particularly challenging for the mainstream economic regime. "When intrinsic motivation is present, pecuniary sources of utility might crowd out its nonpecuniary sources" (Valentinov, 2007, p. 53). If achieving a task is at the same time extrinsically and intrinsically motivated, the more devalued the attribution of a self-determined action is, the more strongly the individuals believe themselves to be subject to outside control. When one goal is taken to be instrumental for reaching another goal, the first goal loses its value (Kruglanski, 1975). Moynihan (2010) also criticizes a too strong focus on extrinsic incentives, adding a claim that agency theories from market models, applied on public service employees have created opportunities for moral hazard.

In this paper, we look into the opposite possibility, which is hardly studied before, that intrinsic motivation crowd out extrinsic motivation, and, thereby have a negative effect on the purpose of an innovative activity in the public sector.

3.1. Analytical approach

Intrinsic motivation in working life is rooted in the primary need of competence for the task (Deci & Ryan, 1985). Thus, one potential intrinsic motivation for participating in the Ethics project is to enhance competence in ethical reflection, which is also the objective of the project. Moreover, as systematic ethical reflection is an innovative activity in these municipalities (Nilsen et al., 2015), this activity may also be seen as an intellectual challenge which does not need any reward beyond this activity (Sauermann & Cohen, 2008).

The purpose of the Ethics project is to contribute to enhance patients' experience of integrity and dignity. This is an instrumental goal derived from the objective, with satisfied patients as the reward. The purpose of the Ethics project can therefore also be seen as an extrinsic motivation for participating in the project. In Figure 1 we illustrate the links which we will investigate between the municipalities' motivation to participate, and the results of the project.

The program theory of the Ethics project is that doing an ethical reflection on a regular basis will enhance the employee's competence in ethics, which will lead to patients experiencing enhanced feeling of integrity and dignity (KS, 2014). In short, a program theory is the theory or model of how an intervention—such as a project of policy—contribute to a chain of intermediate results and finally to the intended outcome (Funnell & Rogers, 2011). The interest and use of program theory or program logic, and also program theory evaluation as a method, has grown considerably since the early start in the 1960's (Rogers, Petrosino, Huebner, & Hacsi, 2000; Suchman, 1967; Weiss, 1972). This paper is not an evaluation of a program theory as such, but takes a critical look into the
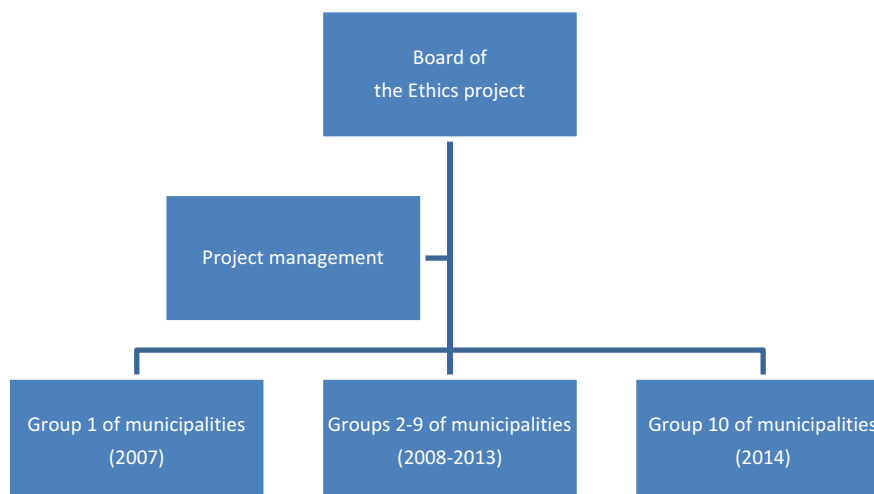
program logic of the Ethics project. In particular, we focus on the link between objective and purpose as a possible explanatory factor in interpreting the data and results of this paper.

4. Facts and figures on the ethics project

The Ethics project lasted from 2007 till 2015 and was a cooperation between the Ministry of Health and Care Services, the Norwegian Directorate of Health, trade unions with members from health-care professions, Centre for Medical Ethics, and the Norwegian Association of Local and Regional Authorities. These organizations also constituted the board, headed by the Ministry. This project was part of an agreement between the Norwegian Government and the Norwegian Association of Local and Regional Authorities (Ministry of Health and Care services, 2006). In 2016 the Ministry of Health and Care service decided to prolong the main features of the Ethics project. This paper does not look into this prolonged part. Moreover, the web sites of the Norwegian Association of Local and Regional Authorities primarily refer to activities starting from 2016 (KS, 2017). All the Norwegian municipalities are a member of KS, which advocates the interests of its members towards central government, the Parliament, labor organizations and other organizations. Their vision is an independent and innovative local government sector and one of their main objectives is to strengthen the members as competent and reliable employers (KS, 2018).

The municipalities did decide themselves if they wanted to join the Ethics project, and which year to start. The project management sent letters of invitation to all municipalities, prior to the start of each new group of municipalities, totaling 10 groups—as illustrated in Figure 2. The project management's main tasks was to recruit municipalities, to arrange seminars for them on ethical reflection, to make tools on ethical reflection available both on the projects web page as well as in printed versions, and to collect end-of-project reports from the participating municipalities. 2–4 persons from each municipality took part in mandatory seminars on ethical reflection. These persons were mostly health-care personnel from nursing homes, home-based care, and sheltered housing, but also administrators from different levels of the municipality participated. After the seminars on ethical reflection, the health-care personnel arranged and guided ethics reflection groups for their colleagues at their work-place. The person leading this activity is called ethics facilitators and chose the specific tool for the exercise on ethical reflection based on factors like the size of the group, the time available for the activity, and how often they did it; which varied from weekly to monthly, or more seldom (Nilsen et al., 2015). Different methods on ethical reflection have been developed before and independent of the Ethics project (Racher, 2007). Through the Ethics project, existing tools were modified to fit the project, and several new tools were developed as well (KS, 2015, p. 30). The new tools were developed both by the participating

Figure 2. The organizational structure of the Ethics project.

cogent · business & management

municipalities on their own initiative, and by academics on ethical reflection—after a request from the project management (Eide & Aadland, 2012; KS, 2015). Common tools in the Ethics project are known as the pedagogic sun, the fishbowl-method and reflection cards. To exemplify one of these, the pedagogic sun has a question or statement in the middle regarding a difficult situation in patient care, and each participant is assigned a sunbeam to fill in a reflection on the statement. Summing up all the different reflections is to give attention to different perspectives and thereby different values involved in the situation. The group is then to discuss priorities, what is at stake, which values are more important, and why, in each case (Tveiten, 2002).

The municipalities participated in the Ethics project on average 2 years each, which was also according to the overall project plan (Nilsen et al., 2015). This paper does not look into what happened in the municipalities after this project period was over.

5. Methodology

The empirical case of this paper is by far the biggest project in Norway to enhance ethical competence in community health-care services, with regard to a number of persons and munici-palities involved as well as the time span of 9 years (Magelssen et al., 2016a). The scale of this case makes it suitable to shed light on the important factor of motivation for innovative ethical practices in community health-care services, and how motivation corresponds with the results from the Ethics project as well as policy signals on the purpose of this national project. This is our primary reason for using this case to illustrate our research questions.

The large scale, and the sizable amount of data described in the following sections, also serves the purpose of giving validity to this research design. All available data received from KS including 180 reports from the participating municipalities are analyzed, and not only well-chosen examples. We thereby avoid anecdotalism, a weakness in many qualitative studies, and instead entail a "comprehensive data treatment" (Silverman, 2005, p.211–215). To further strengthen the valid-ity, we have used what is called a constant comparative method which implies to constantly inspect and compare all the data that arise in the case (Glaser & Strauss, 1967). Three researchers started out by analysing a few of the 180 reports and, based on these, generating a set of categories. "Then, having generated a set of categories, you can test out emerging hypotheses by steadily expanding your data corpus" (Silverman, 2005, p. 214).

By expanding the dataset, it is necessary to have a constant back and forth between the different data and eventually ending up with the final categories which we describe below and present in Tables 1 and 2. This back and forth process was done by three researchers, separately, whom thereafter met to discuss adjustments of the categories. After all the data were discussed within the group of three researchers, the data and the categories were presented for two more researcher, acting as expert advisors (Nilsen et al., 2015). Finally, and enhancing the reliability of this method, the results were approved by the board of the Ethics project (see Figure 2).

5.1. Data

The data for our analysis were gathered by two different qualitative methods; a broad document analysis, and interviews with the project management and members of the board of the Ethics project.

5.2. Document analysis

The main bulk of documents which we analyzed were the 180 reports requested by the project management from municipalities participating in the Ethics project, from the start in 2007 till the end in 2015. These reports did not follow the same standard, for several reasons; 1) the project management revised the form of these reports as the project proceeded, based on their own need of information in the daily running of the project, 2) some municipalities made their own report format answering the same questions in a more expansive way, 3) some municipalities added separate attachments not asked for by the project management, but made for other purposes

Table 1. Results of the Ethics project in municipalities		
	Reported results from 180 municipalities	**Number of municipalities***
A	Enhanced employee competence	145
B	Enhanced quality in the healthcare service	38
C	Better communication between colleagues, interdisciplinary understanding	33
D	Better working environment	47
E	Reduced sick leave	15
F	Enhanced user satisfaction	18

*The figures in this row cannot be summed up, as many municipalities describe more than one type of result.

Table 2. Link between motivation for participating and enhanced user satisfaction		
Motivation	**Number of municipalities**	**Number of municipalities with results in row F, Table 1**
Enhanced competence in ethical reflection	140	0
Enhanced user satisfaction including experience of integrity and dignity	10	5
Both enhanced competence and user satisfaction	30	13

such as local or regional politicians, describing their project in a more official way. Still, most reports were 2 pages of A4 long, whereas 50% of this space was the questions from the project management. Reports from 63 municipalities were lacking to make up the total of 243 participants in the Ethics project. The project management made efforts to get these missing reports from municipalities, but did not succeed. The reports present the results from the departments where the ethical reflection had taken place.

The form of the reports, developed by the project management, was an encouragement to write in a story-telling style, and most reports from the municipalities were consequently in that form. Hence, the results presented in the following chapters are based on a thorough qualitative interpretation of all answers from each municipality. The motivation for participating in the Ethics project was in most of the reports found as an answer to this question: "What did you want to achieve by participating in this project, and why? Specify the goal and background for your participation." (Our translation from Norwegian) The results reported by the municipalities were in most of the reports found as an answer to the following question: "What have you achieved so far? What has been decisive to achieve this—success criteria?" (Our translation from Norwegian) For other and more detailed questions in the reports on a specific outcome, kindly see the first paragraph in the chapter on Results as well as Table 1 in the same chapter.

Other documents which we analyzed were the mandate of the board and other internal management systems papers, as well as the letters of invitation from the project management to the municipalities.

5.3. Interviews
The interviews were conducted in 2014 and 2015 and served two purposes. Firstly, to gather the information that was not provided by the document studies, secondly, to dig deeper into questions

to which the documents did not provide satisfactory answers. Thus, the two data sets to a certain extent serves to validate each other.

The interviewees were all members of the project management, as well as members of the board of the Ethics project.[2] This totaled seven individual interviews, six in person, and one per telephone. In addition, one group-interview was conducted with four persons from the project management—which had not been interviewed individually. The reason for doing a group interview was to get the addition of a deeper and richer data through this form of social interaction, than those obtained from the one-to-one interviews (Thomas, MacMillan, McColl, Hale, & Bond, 1995). The first four interviews, as well as the group-interview, were conducted by two researchers. The two last individual interviews, including the one per telephone, were conducted by one researcher. All the interviews were transcribed and discussed within the group of three researchers which had conducted the interviews, and the discussions were later expanded to include two more researchers working on the same project to enhance the reliability of the analysis (Nilsen et al., 2015).

The interviews were semi-structured, lasting approximately 1 h. Several of the questions concerned the theme of another investigation not related to this paper. The overall questions to answer the research questions of this paper were formulated as follows: What is the purpose of the Ethics project? What is the objective of the Ethics project? How were these communicated to the municipalities? What has been the outcome of this project, in terms of reaching the objective, purpose, or other results? What do you think motivated so many municipalities to participate?

5.4. Limitations on the data

The 180 reports from the municipalities were answers to questions formulated by the project management and approved by the board of the Ethics project. We learned from the interviewees that they had not planned these reports to be used for research. The reports were made to be a guiding tool and give feedback to the project management, as well as a link and instrument to keep in touch with the participating municipalities. As described above, the questions from KS to the municipalities changed throughout the project period. Hence, the results presented in the following chapters are based on each of the municipalities' 180 reports.

Most of the reports from the municipalities are authored by project leaders or project participants in the specific division where the ethical reflection had taken place, but not all the reports include information on the author's role in the Ethics project. Moreover, there is no information to what extent the authors in the municipalities involved other participants in the ethical reflection groups, to get input to the report. The interviewees from the project management did not know this either but assumed that the reported results are these single persons overall professional opinion, based on their qualitative knowledge and impressions. We did not have the opportunity to convey other questions or specifications to the participating employees in these municipalities, not to interfere with another ongoing analysis of the same project.

The primary data for this paper is not public, for several reasons. The transcripts of the interviews are not publicly available due to the obligation of keeping the anonymity of the interviewees.[3] The 180 reports from the participating municipalities as well as the letter of invitations to these municipalities is the property of KS. These are not publicly available, but the authors' affiliation was given access to these as part of another analysis of the Ethics project (Nilsen, Antonsen, Normann, Kirkhaug, & Tønnessen, 2015). This analysis including the use of these documents is publicly referred to by KS (2017). References to these documents, and citations from some of the reports, are anonymized both regarding the specific municipality, name, and affiliation of the author. This is to comply with ethical standards for research (The Norwegian National Committees for Research Ethics, 2016).

6. Results from and analysis of the municipalities' reports

The qualitative analysis of the 180 reports is encapsulated in Tables 1 and 2. Tables 1 and 2 are based on answers to questions in the report like: What did you want to achieve with this project? What is

your goal? Have this project improved the practice and the quality of the services? Have the project had an impact on sick leave, work environment, use of force, user satisfaction, cooperation etc.? Is the project evaluated, and if so, when and how? Regarding the last question, only three municipalities had consulted patients or next in kin in their evaluations. Without these exceptions, row B and F in Table 1 is based on the health-care workers own perception of the effect of their work.

In Table 1, row A to E describe results which first and foremost are effects for the municipalities, not the users of their services. The biggest group is the 145 municipalities reporting enhanced competence in ethical reflection, as illustrated in row A, Table 1. The following citation is a typical description of the goal of their participation: "Raising the ethical theoretical competence and consciousness in the groups of personnel" (Municipality in Group 5), which was the objective of the project.

Another study of the Ethics project, using other data, makes a definite link between positive results for the employees to better practice (Magelssen et al., 2016b, 2016a). Regarding row A-E, it can be argued that enhanced user satisfaction can be derived from enhanced competence, quality in the services, interdisciplinary understanding, better working environment or reduced sick leave, and that this is a reason for the municipalities' lack of focusing on the user side as such. Still, this link was not expressed in any of the reports and hence there are no data to support this reasoning. Instead, the numbers demonstrate that the results were first and foremost effects for the municipalities, as reported in row A—E.

In Table 1 row F, 18 municipalities report an effect for the users of their services. Only seven of these reports contained the exact words integrity and dignity, which was the specific formulation of the purpose of the project. As a change in the experience of integrity and dignity is very difficult to measure and evaluate, we used the broader and more overall category of enhanced user satisfaction. We get back to this distinction in our final discussion.

In Table 2 we have sorted and grouped the municipalities by their motivation or reason to participate, as described in the 180 reports. Next, for each municipality, we checked whether this motivation corresponded with possible results on enhanced user satisfaction, described in the same report. As we see, if their reason or motivation to participate does not mention user or patient satisfaction, the reported results do not include enhanced user satisfaction either.

Neither question in the reports to the municipalities did specifically ask for the reason or motivation to participate by referring to objective versus purpose. The wording was the general "goal", which can be both objective and purpose. One hundred and forty of 180 municipalities stated that enhanced competence is the goal, also by elaborating on managing the job better, making more informed priorities and more tools to use in the job. Neither of these municipalities did report a result of enhanced user satisfaction. Table 2 displays that 10 municipalities stated their motivation as enhanced user satisfaction, and five of these had enhanced user satisfaction as a result. The last row in Table 2 illustrates that 30 municipalities had both enhanced employee competence and enhanced user satisfaction as their goals, and 13 of these reported enhanced user satisfaction as a result. Of the 18 municipalities reporting a result of enhanced user satisfaction—which is in coherence with the purpose—seven specifically mentioned integrity and dignity. Summing up, the results in Table 2 indicate a clear link between motivation and result, and that type of motivation matters for the result. This is important for illuminating Figure 1.

7. Results and analysis of letters of invitation, and interviews

What motivated 243 municipalities to participate in the Ethics project? The first information the municipalities got regarding the project was the letter of invitation from KS. This was sent from the project management to the central administrative unit in each municipality. The main message in this letter is to enhance competence in ethical reflection and establish meetings or sessions where this is practiced on a regular basis. This is the objective of the Ethics project. In the letters of the

invitation there is no stated purpose of the project. It does not say that the enhancing of competence is instrumental for another goal.

However, the interviews did reveal that there was indeed an overall purpose in the Ethics project of enhancing the patients' experience of integrity and dignity. This was the policy signals from the Ministry of Health and Care Services as well as the Norwegian Directorate of Health, which both were members in the board of the Ethics project. All interviewees confirmed that the goal of enhanced patient satisfaction was communicated orally to the participants in the mandatory seminars. Still the interviews with the project management, as well as representatives from the board, makes it clear that there is no coherent understanding of the difference between objective and purpose, nor the fact that the latter is missing in all relevant project documents, both internal documents and external to the municipalities, until 2014. That year the purpose of the Ethics project was stated in a request for an external evaluation of the Ethics project: "The purpose of competence in ethics and regular ethical reflection in community healthcare practice is to enhance the patients' experience of integrity and dignity." (KS, 2014). Most of the interviewees had no opinion as to the motivation of the municipalities' participation.

8. Discussion and conclusion

The Ethics project, which lasted from 2007 till 2015, involved community health-care personnel in more than half of all the municipalities in Norway. During this period more than two thousands of health-care personnel participated in the innovative activity of ethical reflection, on a regular basis. The objective of the project was to enhance competence in ethical reflection, and this was communicated very clearly in the letters of invitation from the project management to the municipalities. The reports from the municipalities demonstrated that a vast majority had fulfilled the objective. However, for the majority of the participating municipalities the objective of the project corresponded with their motivation to participate—to enhance their own competence—quite independent of possible consecutive consequences. This is an intrinsic motivation per definition, and is a typical motivation when in need of competence, or driven by the intellectual challenge of performing or solving a task—in this case ethical reflection. This is the answer to our first research question, on the balance between intrinsic and extrinsic motivation for the participating municipalities.

The purpose of the project, to enhance the patient's experience of integrity and dignity, was not communicated explicitly to the municipalities in letters of invitation. The purpose was expressed after the municipalities had joined the project, orally, in seminars on ethical reflection arranged by the project management. This oral communication did not affect the large majority of municipalities to also focus on the purpose of the project. As is documented by our analysis of 180 reports from the municipalities whom did participate, no more than 40 municipalities stated that enhanced user satisfaction was a motivation. Within this group of 40 only seven used the specific wording of enhanced user satisfaction—experiencing integrity and dignity—as their motivational factor for joining and participating in the Ethics project. In here is also the answer to our second research question, the correspondence between motivation and the purpose of the project, which is very low. Interestingly, it is among these 40 participants we found the 18 who reported enhanced user satisfaction as a result, in line with the very purpose of the project. This finding is a clear indication that whether the motivation is intrinsic or extrinsic had an effect on the results of this project, which is the answer to our third research question. By referring to Figure 1, the mathematical symbol = (equal to) between the two different paths towards the final result must be replaced by the symbol ≠ (not-equal to). In other words, type of motivation matters for the type of outcome.

The theoretical premise or the program theory (Petrosini et al., 2000, Funnell & Rogers, 2011) of the Ethics project is that enhancing competence in ethical reflection will lead to patients experiencing an enhanced feeling of integrity and dignity. However, the qualitative analysis of the reports demonstrates that the results are primarily a fulfilment of the objective. Given that the

purpose of the project was not communicated explicitly enough, and too late in the process to be a motivational factor for the majority of participants, the link in the program theory between objective and purpose was too weak to make up for this—too weak to induce fulfilment of the purpose. The intrinsic motivation crowded out the extrinsic motivation, and by this, the results of the project in terms of fulfilling its purpose is weak.

If the purpose was expressed clearly in the letters inviting participants and repeated in the request for reports from the municipalities, we still cannot know for sure if this would make more municipalities report enhanced satisfaction among patients. The link in the program theory may still be too weak. Many other factors than sound ethical decisions in patient care affect patients' experiences of integrity and dignity. For instance, changes in the physical surroundings, or cut in budgets affecting the quality of the food or time available for each patient. Moreover, external factors in patients' life may also affect their sensibility towards how they experience the quality of the health and care services. Hence, it is methodological challenging to measure the enhanced experience of integrity and dignity as a result of increased competence in ethical reflection. With so many uncertainties in working to fulfil the purpose of the Ethics project, the employees may have ended up being disappointed and demotivated (Bolle & Otto, 2010; Gneezy & Rustichini, 2000) whereas enhancing competence on ethical reflection was a more certain result to aim towards. The intrinsic motivation for competence in ethical reflection is also sensible and rational as inability to deal with ethical challenges gives rise to frustrations and a feeling of powerlessness among care providers (Jakobsen & Sørlie, 2010). "Which are the biggest challenges?" This was one question in the reports to be answered by the municipalities, and the following quote illustrates our point here: "To keep our motivation high (…). This conditions that we see results, which we do." This participant specified the results as a higher level of ethical reflection in their department, and that employees raised ethical dilemmas internally.

The Ethics project required innovative activities in municipalities, which were primarily motivated intrinsically. We know from previous research that a certain intrinsic motivation is needed for these kinds of actions to take place. The overall research question of this analysis is if the Ethics project was an appropriate tool for giving better services by strengthening the skills of the employees in ethical reflection. The answer is that it was a very good tool to strengthening the skills of the employees. However, the very purpose of the project—the overall reason for this intervention—was by and large neglected. The link in the program theory between the objective and purpose is too weak to make up for this neglect and make the reward likely. Hence, the extrinsic reward was not a motivation for the large majority of the participants. A critical pre-project phase where the program theory is scrutinized including links between objective and purpose is recommended to raise awareness on such possible pitfalls. Both alternative objectives to reach the purpose, as well as the purpose itself, need to be discussed, especially in a national project of this scope. A possible modification of the purpose in the Ethics project could be as explicated in Table 1, using the more overall purpose of increased user satisfaction, instead of enhanced experience of integrity and dignity.

The findings and analysis also contribute to the understanding of the dynamics of creating public value through public innovation, by showing that knowledge of the motivation with which different agents enters innovation processes, have a great impact on the public values that are realized by it. On the more substantial side, the findings also open for reflections of a possible shifting balance between New Public Management and service-dominant logic. Enhancing the knowledge of the employees might be a step on the road to a service logic that has the receiver at the center and is based on the understanding of the service as individually created in each and every situation (Vargo & Lusch, 2008). However, our findings indicate that the project may first and foremost have been used as a competence building asset for the municipal employees, and as such enhancing private values, rather than public ones. Examples of private values induced from enhanced competence, in general, may be job security, superiority in professional discussions, or promotion. These are aspects which we have not looked into in this case study, but which are timely to include in future studies.

A limitation of this study is that the reports from the municipalities were not designed by the authors of this paper, but by the project management of the Ethics project to be a guiding tool for them. The wording of the questions from the project management changed slightly between the participating groups, and the reports varied in length and substance, demanding a qualitative interpretation to arrive at the common categories for the data material. Another limitation of this study is that in the long run one should not rule out the possibility that the participants' competence building and experiences from the Ethics project may have an impact on integrity and dignity. But to measure this, one would have had to start a longitudinal study when the Ethics project started, and possibly apply a dissemination or translation perspective (Rogers, 2003; Wæraas & Nielsen, 2016).

Public sector innovation is a key to solve major pressing challenges, and it is likely that the innovative activity of ethical reflection may disseminate to other branches beyond public health-care, taking into account persistent ethical problems as corruption, severe environmental pollu-tion, and fraud. The findings of this paper is an input to guide policies, planning, and implementation of future innovations, so that the very purpose of an innovation does not get lost in motivation.

Author details
Heidi Rapp Nilsen[1]
E-mail: heidi.r.nilsen@ntnu.no
Toril Ringholm[2]
E-mail: toril.m.ringholm@uit.no
[1] Norce Norwegian Research Centre as, p.o. 22 nygårdstangen, Bergen 5838, Norway.
[2] Uit The Arctic University of Norway, postboks 6050 langnes, tromsø 9037, Norway.

Citation information
Cite this article as: Lost in motivation? The case of a Norwegian community healthcare project on ethical reflection, Heidi Rapp Nilsen & Toril Ringholm, *Cogent Business & Management* (2019), 6: 1632045.

Correction
This article has been republished with minor changes. These changes do not impact the academic content of the article.

Notes
1. It has not been possible to establish an exact number of participants, and the estimate is a moderate one, based on the project leader's experiences.
2. We do not inform on the exact number of individuals from the board and from the project management respectively. Keeping this figure disaggregated contri-bute to the anonymity of the participants, in line with ethical guidelines for qualitative research (https://www.etikkom.no/en/ethical-guidelines-for-research/).
3. This was also the decision by the Norwegian Centre for Research Data (2017), which is the Data Protection Official for Research for the authors' affiliation at this time.

References
Amabile, T. M. (1988). A model of creativity and innova-tion in organizations. *Research in Organizational Behaviour, 10*, 123–167.

Benington, J., & Moore, M. (2011). Public value in complex and changing times. In J. Benington & M. Moore (Eds.), *Public value. Theory and practice* (pp. 1–30). Houndmills: Palgrave Macmillan.

Bolle, F., & Otto, P. E. (2010). Price is a signal: On intrinsic motivation, crowding-out, and crowding-in. *Kyklos: International Review of Social Science, 63*(1), 9–22. doi:10.1111/j.1467-6435.2010.00458.x

Calder, B. J., & Staw, B. M. (1975). The self-perception of intrinsic and extrinsic motivation. *Journal of Personality Social Psychology, 31*, 599–605. doi:10.1037/h0077100

Chen, C.-A., & Hsieh, C.-W. (2015). Does pursuing external incentives compromise public service motivation? Comparing the effects of job security and high pay. *Public Management Review, 17*(8), 1190–1213. doi:10.1080/14719037.2014.895032

Cooper, R. B., & Jayatilaka, B. (2006). Group creativity: The effects of extrinsic, instrinsic, and obligation motivations. *Creativity Research Journal, 18*(2), 153–172. doi:10.1207/s15326934crj1802_3

Daly, H. E., & Cobb, J. B., Jr. (1989). *For the common good: Redirecting the economy towards community, the environment and a sustainable future*. Boston, Massachusetts: Beacon Press.

De Vries, H., Bekkers, V., & Tummers, L. (2015). Innovation in the public sector: A systematic review and future research agenda. *Public Administration, 94*(1), 146–166. doi:10.1111/padm.12209

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.

Eide, T., & Aadland, E. (2012). *Etikk-håndboka. For kom-munenes helse- og omsorgstjenester. [The ethics handbook. For the municipal health- and care-services]* (2nd ed.). Oslo: Kommuneforlaget.

Folbre, N., & Nelson, J. A. (2000). For love or money - or both? *The Journal of Economic Perspectives, 14*(4), 123–140. doi:10.1257/jep.14.4.123

Frese, M., Teng, E., & Wijnen, C. J. D. (1999). Helping to improve suggestion systems: Predictors of making suggestions in companies. *Journal of Organizational Behavior, 20*, 1139–1155. doi:10.1002/(SICI)1099-1379(199912)20:7<1139::AID-JOB946>3.0.CO;2-I

Funnell, S. C., & Rogers, J. (2011). *Purposeful program theory: Effective use of theories of change and logical models*. San Francisco: Jossey-Bass/Wiley.

Gilg, A., & Barr, S. (2006). Behavioral attitudes towards water saving? Evidence from a study of environmental actions. *Ecological Economics, 57,* 400–414. doi:10.1016/j.ecolecon.2005.04.010

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago: Aldine.

Gneezy, U., & Rustichini, A. (2000). Pay enough or don't pay at all. *The Quarterly Journal of Economics, 115*(3), 791–810. doi:10.1162/003355300554917

Harrison, M. M., Neff, N. L., Schwall, A. R., & Zhao, X. (2006). 'A Meta-analytic investigation of individual creativity and innovation,' paper presented at the 21st Annual Conference for the Society for Industrial and Organizational Psychology, Dallas, Texas.

Hartley, J., Alford, J., Huges, O., & Yates, S. (2015). Public value and political astuteness in the work of public managers: The art of the possible. *Public Administration, 93*(1), 195–211. doi:10.1111/padm.12125

Jakobsen, R., & Sørlie, V. (2010). Dignity of older people in a nursing home: Narratives of care providers. *Nursing Ethics, 19*(2), 72–80. doi:10.1177/0969733009355375

Kruglanski, A. W. (1975). The endogenous-exogenous partition in attribution theory. *Psychology Review, 82,* 387–406. doi:10.1037/0033-295X.82.6.387

KS (2014). "Forespørsel om tilbud på sluttevaluering av det nasjonale utviklingsprosjektet 'Samarbeid om etisk kompetanseheving" [Invitation to tender for final evaluation of the national development project 'Collaboration on ethical competence enhancement']. Reference/Archive nb. 14/00704.

KS. (2015). Historier om etisk refleksjon [Stories of ethical reflection]. Retrieved from http://norut.no/sites/default/files/gode_historier_om_etiskkompetanse.pdf

KS. (2017). Informasjon om etikksatsingen [Information on the ethics initiative from 2016–2020]. Retrieved from https://www.ks.no/fagomrader/helse-og-omsorg/eldreomsorg/samarbeid-om-etisk-kompetanseheving/informasjon-om-etikksatsingen-fra-2016-2020/

KS. (2018). The Norwegian association on local and regional authorities. Retrieved from http://www.ks.no/news-in-english/english-articles/about-ks/

Le Grand, J. (2010). Knights and knaves return: Public service motivation and the delivery of public services. *International Public Management Journal, 13*(1), 56–71. doi:10.1080/10967490903547290

Magelssen, M., Gjerberg, E., Lillemoen, L., Førde, R., & Pedersen, R. (2016b). Ethics support in community care makes a difference for practice. *Nursing Ethics, 25*(2), 165–173. doi:10.1177/0969733016667774

Magelssen, M., Gjerberg, E., Pedersen, R., Førde, R., & Lillemoen, L. (2016a). The Norwegian national project for ethics support in community health and care services. *BMC Medical Ethics, 17*(1), 70. 1–7. doi:10.1186/s12910-016-0158-5

Ministry of Health and Care services. 2006. White paper nb 25 (2005–2006): Mestring, muligheter og mening. Framtidas omsorgsutfordringer. Omsorgsplan 2015. [Mastering, possibilities and meaning. Care challenges of the future. Care plan 2015]. Retrieved from https://www.regjeringen.no/no/dokumenter/stmeld-nr-25-2005-2006-/id200879/

Moore, M. (1995). *Creating public value: Strategic management in government*. Cambridge MA: Harvard University Press.

Moore, M., & Benington, J. (2011). Conclusions. Looking ahead. In J. Benington & M. Moore (Eds.), *Public value. Theory and practice* (pp. 256–274). New York, NY: Palgrave Macmillan.

Moynihan, D. P. (2010). A workforce of cynics? The effects of contemporary reforms on public service motivation. *International Public Management Journal, 13*(1), 24–34. doi:10.1080/10967490903547167

Mumford, M. D. (2003). Where have we been, where are we going? Taking stock in creativity research. *Creativity Research Journal, 15,* 107–120. doi:10.1080/10400419.2003.9651403

Nilsen, H. R. (2010). From weak to strong sustainable development. An analysis of Norwegian economic policy tools in mitigating climate change. Bodø Graduate School of Business, PhD serie No.24 – 2010.

Nilsen, H. R., Antonsen, Y., Normann, A. K., Kirkhaug, R., & Tønnessen, S. (2015). Evaluering av det nasjonale prosjektet 'Samarbeid om etisk kompetanseheving'. Styring, ledelse og gjennomføring. Norut report nb 12/2015. ISBN: 978-82-7492-304-1. Retrieved from https://norut.no/nb/publications/evaluering-av-det-nasjonale-prosjektet-samarbeid-om-etisk-kompetanseheving-styring

Norwegian Centre for Research Data. (2017). Do I have to notify my project? Retrieved from http://www.nsd.uib.no/personvernombud/en/notify/index.html

Osterloh, M., & Frey, B. S. (2000). Motivation knowledge transfer, and organizational form. *Organization Science, 11,* 538–550. doi:10.1287/orsc.11.5.538.15204

Perry, J. L, & Wise, L. R. (1990). The motivational bases of public service. *Public Administration Review, 50,* 367-373. doi: 10.2307/976618

Racher, F. E. (2007). The evolution of ethics for community practice. *Journal of Community Health Nursing, 24*(1), 65–76. doi:10.1080/07370010709336586

Ringholm, T. (2017). Ambiguous accountability in municipal innovation. *The Innovation Journal - Public Sector Innovation Journal, 22*(3), 1-19. ISSN 1715-3816

Roberts, J. A., Hann, I. H., & Slaughter, S. A. (2006). Understanding the motivations, participation, and performance of open source software developers: A longitudinal study of the apache projects. *Management Science, 52*(7), 984–999. doi:10.1287/mnsc.1060.0554

Rogers, E. (2003). *Diffusion of Innovations*. New York: Free Press.

Rogers, P. J., Petrosino, A., Huebner, T. A., & Hacsi, T. A. (2000). Program theory evaluation: Practice, promise, and problems. *New Directions for Evaluation, 2000* (87), 5–13. doi:10.1002/ev.1177

Sauermann, H., & Cohen, W. M. (2008). What makes them tick? Employee motives and firm innovation. NBER Working Paper N.14443. Retrieved from http://www.nber.org/papers/w14443

Schumpeter, J. A. (1934/1975). *The theory of economic development: An inquiry into profits, capital, credit, interest and the business cycle*. Cambridge, Mass: Harvard University Press.

Silverman, D. (2005). *Doing qualitative research. A handbook* (4th ed.). London: Sage publications.

Söderhamn, U., Kjøstvedt, H. T., & Slettebø, Å. (2015). Evaluation in ethical reflection in community healthcare: A mixed-methods study. *Nursing Ethics, 22*(2), 194–204. doi:10.1177/0969733014524762

Solum, E. M., Slettebø, Å., & Hauge, S. (2008). Prevention of unethical actions in nursing homes. *Nursing Ethics, 15*(4), 536–548. doi:10.1177/0969733008090524

Suchman, E. A. (1967). *Evaluative research: Principles and practice in public service and social action programs*. New York: Russell Sage Foundation.

Sutinen, J. G., & Kuperan, K. (1999). A socioeconomic theory of regulatory compliance. *International Journal of Social Economics, 26*(1/2/3), 174–193. doi:10.1108/03068299910229569

The Norwegian National Committees for Research Ethics. (2016). Retrieved from https://www.etikkom.no/en/ethical-guidelines-for-research/guidelines-for-research-ethics-in-the-social-sciences–humanities-law-and-theology/b-respect-for-individuals/

Thomas, L., MacMillan, J., McColl, E., Hale, C., & Bond, S. (1995). Comparison of focus group and individual interview methodology in examining patient satisfaction with nursing care. *Social Sciences in Health, 1*, 206–219.

Tønnessen, S., Lillemoen, L., & Gjerberg, E. (2016). Refleksjonsgrupper i etikk: 'Pusterom' eller læringsarena? [Reflection groups in ethics: 'breathing room' or arena for learning?] *Nordic Journal of Applied Ethics, 1*, 75–90. doi:10.5324/eip.v10i1.1844

Tveiten, S. (2002). *Veiledning. Mer enn ord [Tutoring. More than words]*. Bergen: Fagbokforlaget.

Valentinov, V. (2007). The property rights approach to nonprofit organization: The role of intrinsic motivation. *Public Organization Review, 7*, 41–55. doi:10.1007/s11115-006-0024-x

Vargo, S., & Lusch, R. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy and Marketing Science, 36*(1), 1–10. doi:10.1007/s11747-007-0069-6

Wæraas, A., & Nielsen, J. (2016). Translation theory 'translated': Three perspectives on translation in organizational research. *International Journal of Management Reviews, 18*, 236–270. doi:10.1111/ijmr.12092

Weiss, C. H. (1972). *Evaluation research: Methods of assessing program effectiveness*. Englewood Cliffs, N. J.: Prentice Hall.

West, M. A. (1987). Role innovation in the world of work. *British Journal of Social Psychology, 26*, 305–315. doi:10.1111/bjso.1987.26.issue-4

Williamson, O. E. (1985). *The economic institutions of capitalism: Firms, markets, relational contracting*. New York: Free Press.

Cogent Business & Management (ISSN: 2331-1975) is published by Cogent OA, part of Taylor & Francis Group.

Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com