Measuring Professional Judgements
An Application of the Factorial Survey Approach to the
Field of Social Work

Lisa Wallander
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List of studies

This doctoral thesis is based on the following studies:


The published studies are reprinted with the kind permission of Taylor & Francis (Study II) and the National Research and Development Centre for Welfare and Health in Finland (Study III).
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When I began my doctoral studies, the factorial survey approach was nothing more to me than a method for collecting data on the judgements of social workers. However, having acquired some personal experience of it, and having read various interesting articles in which this method was applied to other substantive areas of research, I felt an urge to focus more on the method as such. In the end, the factorial survey approach became the binding glue of my doctoral work. As of today, the founder of this inspiring and fruitful method is unfortunately no longer with us. However, when I started to work with this approach Peter Rossi kindly replied to all my e-mails containing the various analytical and statistical questions that popped up during the process of designing a factorial survey study.

My family of origin – my mother and father, and my sister and brother – have all been encouraging and supportive during the process of writing this thesis. I dare say that my choice of becoming a sociologist initially affected us all – the topic of our dinner conversations on Sundays (when we usually met up at my parents’ place) changed overnight. I especially want to thank my parents for their humanistic upbringing, which among other things has imprinted upon me the habit of always looking for the best in the people that I meet. I would also like to express my appreciation to my parents-in-law and to Roberts’ brothers, for welcoming me into their wonderful family. Last but most, I would like to thank Robert for adding so much meaning to my life. Your love and trust means everything to me. And Alva – you are the sweetest girl in the world.

Ribersborg, October 2008
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Introduction

The French novelist and winner of the Nobel Prize for literature, Albert Camus, once said, “Life is a sum of all your choices”. As we go through life, we are constantly making choices. While the outcomes of some of these choices may be trivial, other choices may have important consequences for our future life experiences, such as the choices of educational and work paths, for example. As expressed by Rossi and Anderson (1982), each choice involves the making of “implicit or explicit judgements about the relative desirability of the alternatives involved” (p. 18; emphasis added). Thus, researchers who seek to find sociological explanations to the question of why certain individuals choose to act in one way rather than another ought naturally to be interested in uncovering the social determinants of individuals’ judgements. However, unlike the concept of “choice” (cf. rational choice theory), that of “judgement” is far from being well established within the discipline of sociology. In fact, not one of four prominent dictionaries of sociology (The Blackwell dictionary of sociology, 1995; The Oxford dictionary of sociology, 1998; Collins dictionary of Sociology, 2000; The Cambridge dictionary of sociology, 2006) has an entry for this particular term. The empirical study of human judgement (and decision-making) has however constituted a central concern for those working in the field of psychology since the late 19th century, when researchers started to perform laboratory experiments (Hammond, 1996). In The Penguin dictionary of psychology (1995), judgement is generally defined as “the process of forming an opinion or reaching a conclusion based on the available material [and] the opinion or conclusion so reached”. The term “opinion” serves as an appropriate link to areas of study that have traditionally been of interest to sociologists. Thus the fact that the term “judgement” has never been acknowledged as a key concept in sociology does not by itself mean that sociologists have not paid attention to individuals’ opinions. On the contrary, hundreds of books and thousands of articles have been written by sociologists (and social psychologists) on the topic of attitudes, opinions and beliefs (terms
which are frequently used synonymously; DeLamater, 1992). The attitude concept was adopted by sociologists as early as 1918, and in 1937, the scientific journal Public Opinion Quarterly was founded. As of today, large-scale public opinion polls, such as the International Social Survey Program, the European Values Study and the General Social Survey (USA), for example, constitute well established research programs with the aims of monitoring and explaining changes and constants (and cross-national differences) in attitudes. In the questionnaires associated with these research programs, individuals’ attitudes, beliefs and opinions are most frequently measured by direct methods, which involve asking questions or providing statements and recording the respondents’ answers to these (DeLamater, 1992).

At the turn of the 1980s, the “factorial survey approach” [FSA] was introduced to the social sciences as a new method for “measuring social judgments” (Rossi & Nock, 1982; see also Rossi 1979; Rossi & Anderson, 1982). At the general level, this method of data collection involves presenting respondents with fictive descriptions of social objects (vignettes), in which selected characteristics describing the objects to be judged are simultaneously manipulated. As opposed to the traditional attitude measures referred to above, the factorial survey approach constitutes a method for indirectly measuring respondents’ judgements and beliefs. The development of this method, which may be described as a “hybrid” technique that combines characteristics of the experiment with elements from the social survey, has been given the primary credit for initiating a revolution in the design of public opinion surveys (Sniderman & Grob, 1996). Thus, although experimental principles had at the time of the introduction of the factorial survey approach been integrated into social surveys for at least a generation – in the form of split-ballot

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1 However, some social scientists would maintain that the treatment of these terms as synonyms is careless and imprecise. This may be particularly true when the term attitude is involved. This term has many – both global and more precise – definitions. Eagly and Chaiken (1998), for example, define an attitude as a “psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (p. 269). While attitudes are generally characterised by the fact that they are expressed by responses of favorability or unfavorability, this is not always the case with human judgements, opinions and beliefs.

2 According to Allport (1935), the concept of attitude was adopted by sociologists subsequent to the publication of Thomas and Znaniecki’s study The Polish peasant in Europe and America in 1918.
experiments, for example – this innovative method suddenly offered “an explosion of analytical possibilities” (Sniderman & Grob, 1996, p. 381). According to the accredited founder of this approach, Peter Henry Rossi (1979), the idea started to take form when he – as a doctoral student and under the supervision of Paul Lazarsfeld – was looking for new ways of empirically studying definitions of the “prestige” of households and families (cf. Rossi, 1951). However, at the time when researchers actually started to apply this method, i.e. three decades later, it rapidly spread to other fields of research. In the anthology published by Rossi and his colleagues in 1982 (Rossi & Nock, 1982), which is considered the classic work on this method, the factorial survey approach is used to study definitions of child abuse (Garrett, 1982), for example, and beliefs about problematic drinking (O’Brien, Rossi & Tessler, 1982).

Over the years, the factorial survey approach has not only been used with the aim of studying “public” judgements (or opinions), but also for investigating judgements made by members of particular occupational groups, such as managers (e.g. Morrill, Snyderman & Dawson, 1997), nurses (e.g. O’Toole, O’Toole, Webster & Lucal, 1993) and police officers (Son, Davis & Rome, 1998). As opposed to many of the “everyday” judgements that are made by individuals in their role as lay people, the judgements that they make at work – while representing various occupational groups – are often of great consequence. This is particularly true for those occupational groups whose members have a responsibility for the “management” of individual cases that may be referred to as “patients” or “clients” (cf. Dowie & Elstein, 1988). In point of fact, many of the judgements made by doctors and by social workers, for example, not only influence the general welfare of their patients/clients, but may in some instances be partly determinative of whether these particular individuals will continue living or will die. Because of the “competence gap” (Parsons, 1978, p. 45), which exists between practitioners and their patients/clients, and which originates in the practitioners’ superior competence in the area of interest, the patients/clients have to take the

3 The split-ballot design can manipulate only a single factor, and this factor can assume only two possible values. For this reason, this form of experiment has predominantly been used in order to investigate issues dealing with the designs of questionnaires, such as for example potential consequences of variations in question ordering and wording (Sniderman & Grob, 1996). The fact that the factorial survey approach makes it possible to simultaneously manipulate several factors (each of which can assume several values) makes it suitable for research whose aim is to assess substantive hypotheses.
judgements made by practitioners “on authority” (i.e. they need to trust them) (Parsons, 1951, p. 463). Thus, the general importance of studying professional judgements cannot be overstated.

**Aims**

The primary focus of this thesis is the factorial survey approach as a method for studying professional judgements in social work. The thesis consists of four papers: In Study I, I explore the general use of the factorial survey approach in sociology between 1982 and 2006. Study II and Study III consist of factorial survey applications in the field of professional judgement in Swedish substance misuse treatment, as organized by the social services. To be more specific, the aims of these papers are to disentangle predictors of social work practitioners’ choices of inpatient or outpatient substance misuse treatment (Study II), and of social work practitioners’ judgements about eligibility for compulsory care (Study III). Finally, in Study IV, I present a conceptual and an analytical framework for the application of the factorial survey approach to the study of professional judgements in social work.

**Central concepts**

As indicated above, it is not unusual for social scientists to treat the terms attitude, opinion, belief and judgement as synonyms. Although some authors of factorial survey studies have chosen to refer to their study object as “attitudes” (e.g. Cochran, Boots & Heide, 2003), neither this term, nor the term “opinions”, will be further employed in this thesis. Instead, I will use the terms “judgements” (cf. Rossi & Nock, 1982) and “beliefs” (e.g. Shepelak & Alwin, 1986), which are more customary in FSA research. Generally, definitions of the term judgement include references both to the process of making a judgement and to the actual judgement made (see above). The factorial survey approach cannot be used for studying the cognitive processes involved when people make judgements, but it may be used to study the determinants of judgements, i.e. relationships between the information provided about an object (input) and the
judgement actually made about this object (output) (cf. Payne, Bettman & Luce, 1998). As for the more precise definition of the term judgement as used in FSA studies, Rossi and Anderson (1982) have maintained that this approach should be used in order to measure “social judgements”. However, besides giving examples of objects that may be regarded as social, and arguing that these social objects “typically… have many traits on which they vary” (Rossi & Anderson, 1982, p. 18), the authors have not provided any clues as to what they actually mean by social judgements. Guillermina Jasso, on the other hand, who is the author of a recently published, comprehensive article on the factorial survey approach (Jasso, 2006), has claimed that this particular method is optimal for investigating what she designates “positive beliefs” and “normative judgements”. While positive beliefs represent individuals’ beliefs about how something “is”, normative judgements refer to individuals’ judgements concerning how something “ought to be” (Jasso, 2006, pp. 335-336). In contrast to the concept of (normative) judgement, which always involves an element of evaluation (cf. Rossi & Anderson, 1982), the concept of (positive) belief may be neutral in its evaluative content (cf. Eagly & Chaiken, 1998). In this thesis, the term belief will be referred to only when there are reasons to emphasize the distinction between judgement and belief. In the remainder of the text, the term judgement will be more broadly employed.

Accordingly, the term “professional judgements” will be employed so as to represent the study objects investigated and discussed in Study II, Study III and Study IV. In addition, and in line with the terminology used in other FSA articles concerned with professional judgements (e.g. Degenholtz, Kane, Kane & Finch, 1999; Applegate, Turner, Sanborn, Latessa & Moon, 2000), I will make use of the terms “choice” and “decision”, in that I will speak of practitioners’ choices of substance misuse interventions, and their decisions about such interventions. Although the definitions of these concepts differ moderately, I will treat them as

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4 Eagly and Chaiken (1998) maintain that beliefs may sometimes express a positive or a negative evaluation of some object but that they may also be neutral in their evaluative content.

5 Interventions are defined as “all the worker’s activities employed to achieve desired outcomes” (Rosen, 1993, p. 89).
synonyms (along with the term “treatment recommendations”). When it comes to the actual meaning of the term *professional judgement*, there is naturally a broad spectrum of definitions that might be employed. In Study II and Study III, “professional judgements” denotes social work practitioners’ judgements about which interventions are the most suitable for the clients involved. By “most suitable”, I mean those interventions that are, according to the practitioners involved, best for promoting the welfare and best interests of the clients. This readiness, on the part of the practitioners, to act as the clients’ advocates and to “try [their] best to help the [clients]” (Parsons, 1951, p. 464), is frequently referred to as an essential characteristic of a professional (cf. Lipsky, 1981). Another example of a professional judgement is practitioners’ beliefs about what constitutes a particular diagnosis (cf. Abbott, 1988). This latter form of professional judgements is further discussed in Study IV.

**Professional judgements in social work – context and conditions**

The substantive object of interest in this thesis is professional judgements in social work (with a focus on the judgements made in association with choices of substance misuse treatment). In making “professional” judgements the focus of the study, it is implicitly assumed that social workers think, and may thus also be described, as “professionals”. The concern about whether or not the occupation of social work may actually

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6 In the American Psychological Association’s [APA] Dictionary of Psychology (2007), the term “choice” is defined as “a decision-making problem in which a person has to indicate a preference for one of a set of alternatives”, while “decision-making” is defined as “the cognitive process of choosing between two or more alternatives”.

7 Just as there are many different meanings associated with the term “profession” (e.g. Fauske, 2008).

8 However, judgements involving the potential use of compulsory care might not only be based on considerations of the client’s own welfare and best interests, but also on concerns about the welfare and security of the individuals who are close to the client.

9 In the review article (Study I), the term professional judgement is used only as a means of identifying samples of respondents in the articles that are being reviewed.
be described as a profession has been debated throughout the 20th century. Most authors who have called social workers’ professional status into question have proceeded from the assumptions included in the “professional model” (cf. “trait model”) approach (e.g. Greenwood, 1957). According to the proponents of this approach, which has its origins in functionalist theory, a number of pivotal characteristics must be present if an occupational group is to be regarded as a profession (for an overview, see Millerson, 1964). One of the reasons for which social work has not been regarded as a full profession is the observed difficulty to “draw a clear line of demarcation” around its field of practice (Flexner, 1915/1991, p. 161). Many years ago, Flexner (1915/1991) described social workers in terms of “mediators”, coordinating specialists from various professions, rather than as experts of a certain field of practice. In addition, because social workers as a rule practice in bureaucratic organizations, and are thus subordinated to the conditions created in such organizations, it has been argued that they do not enjoy the degree of autonomy that is necessary in order to practice in accordance with professional training and experience (Carr-Saunders, 1955). Moreover, it has been stated that the discipline of social work does not possess a developed knowledge base on which practice may be built (Toren, 1972). Taking into account these objections, Toren (1972) argued that social work should rather be described as a “semi-profession” (see also Etzioni, 1969). Over time, however, the group of occupations wishing to describe themselves as professions has come to be more heterogeneous, and the “homogeneous” ideal-type model of a profession has become outmoded. Instead, some authors have started to speak of various “professional types” (e.g. Brante, 1990). As a consequence, different labels have been applied to the occupation of social work, such as for example “state profession” (Brante, 1990) and “life-profession” (Hellberg, 1999). Irrespective of which of these labels is preferred, social workers do belong to the group of occupations whose work is to a relatively large degree regulated

10 To take one example, Greenwood (1957, p. 44) has suggested that all professions possess (1) a basis of systematic theory, (2) authority recognized by the clientele, (3) community sanction, (4) a code of ethics, and (5) a professional culture (including formal professional associations).
by national legislation and by organizational policies and regulations (cf. Brante, 1990).\footnote{Historically, and in contrast to the United States, for example, the work conducted by social workers in Sweden has been less influenced by ideas stemming from the profession itself, and more influenced by political guidelines and organizational concerns (Pettersson, 2001).}

In Sweden, the Social Services Act (2001:453) regulates the work (associated with non-compulsory care provision) performed by the employees of the social services.\footnote{The provision of compulsory care is regulated in separate acts, such as for example the Care of Abusers (Special Provisions) Act (1988:870).} In the chapter of the Act concerning substance misuse, it is maintained that the social services are responsible for providing individuals with the type of help and care that they need in order to overcome their substance misuse (Chapter 5, Paragraph, 9). However, the Social Services Act does not provide any details about what forms of help and care are considered as suitable in individual cases. Instead, these judgements are delegated to the municipal social services, that is to individual social workers or groups of social workers. From this perspective, practitioners with a responsibility for making judgements about the suitability of different interventions for problem substance users inevitably enjoy a large degree of autonomy.\footnote{This does not equally apply to all the work performed within the social services. For example, the judgements about whether or not individuals’ applications for social welfare benefit should be approved are regulated in more detail (Social Services Act (2001: 453)).} This form of autonomy is frequently discussed in terms of “discretion”, which may be defined as the “legitimate right to make choices based on one’s authoritative assessment of a situation” (Hawkins, 1992, p. 164). As expressed by Shnit (1978), the primary reason for allocating such wide powers of discretion to social service practitioners is that professional knowledge is superior to general rules in guiding the work of finding solutions that fit the needs of individual clients.

However, social workers’ right to make choices based on their assessment of a situation is further restricted by the conditions imposed in the social service organizations in which they are employed. In the literature, these organizations are frequently referred to as “human service organizations”, and they are distinguished by the facts that they have people as their “raw material” and that they “process, sustain, or change [the] people who come under [their] jurisdiction” (Hasenfeld, 1992,
Aside from the work conditions created by the very fact that these organizations as a rule take the form of a bureaucracy\textsuperscript{14}, the individual “street-level bureaucrat’s” (cf. Lipsky, 1980) judgements and choices of interventions for clients are generally limited by budget restrictions and by particular organizational policies and regulations.\textsuperscript{15} Even though many organizational policies may have been introduced so as to enhance the quality of care, they may inadvertently result in the opposite. Almost three decades ago, Sunesson (1981) warned that if too much effort is directed towards the objective of correctly dealing with a “case” – as formulated in organizational policies and regulations – this may occur at the expense of efforts aimed at finding out what is actually best for the particular client involved. Although social workers might sometimes experience a clash between these two different principles – one that is associated with the outcome of the social work intervention and one that is related to the formal procedure of social work practice – Börjeson (2003) has maintained that there is no genuine competition between the two (at least not in Sweden), since the Social Services Act clearly emphasizes the client’s best interests (see above).

One prerequisite for realizing the clients’ best interests, however, is that social workers know what to do in order to achieve the best possible outcome for the clients involved. As a consequence of the advancement of the evidence-based practice movement in social work (cf. Trinder, 2000), increasing attention has lately been paid to the use of scientific evidence as a basis for social work practice. However, as of today, there is very little research-based knowledge that could serve to guide social workers in their efforts to find solutions that fit the various needs of their clients (Trinder, 2000). In the context of substance misuse treatment, for example, it has long been acknowledged that there is no single form of

\textsuperscript{14} According to Larsson and Morén (1988), for example, the bureaucracy conveys messages of indifference as regards the needs of the individual clients.

\textsuperscript{15} These may concern both the process involving the decisions preceding the initiation of interventions, and certain elements connected to the actual choices of interventions for clients. For example, a policy may exist that states that practitioners should rely on a standardized assessment instrument – such as the Addiction Severity Index for example – for assessing clients with a potential substance misuse (cf. Engström & Armelius, 2005). As regards decisions about who should receive a particular form of treatment, it may be officially stressed as important that the clients try outpatient treatment before they are recommended for inpatient treatment (Blomqvist & Wallander, 2004). In addition, basic agreements may exist that regulate which particular treatment facilities are available for use by the clients associated with a particular social service agency.
intervention that is equally suitable for all problem substance users (cf. Lindström, 1992). As a consequence of this, a number of scientific projects have been carried out with the aim of finding out what forms of interventions are most suitable for which problem substance users (e.g. Project MATCH Research Group, 1997). However, following a thorough review of the studies conducted in this area of practice (The Swedish Council on Technology Assessment in Health Care, 2001), it was concluded that they have not provided much evidence that might serve to guide the efforts of social workers’ in “matching” clients to interventions (Bergmark, 2001). Furthermore, although the ambition that social work should primarily be grounded in scientific evidence is commendable, and despite the fact that future research will most probably provide more evidence that could be used in practice, it must not be forgotten that the practice of social work will – due to the fluctuating nature of social problems – always remain an occupation with a high “indetermination/technicality ratio” (cf. Jamous & Peloille, 1970). In other words, because the effects of social work interventions cannot be charted to the same extent as those of many medical interventions, for example, there will never be enough scientific knowledge to rule out other sources of influence on social work practice.

Accordingly, social workers’ “authoritative assessments of a situation” (cf. above), and their “spontaneous” efforts to match clients to interventions – which have indeed been observed (Blomqvist, 1991; Holmberg, 1992) – may be affected by various factors originating in sources other than scientific research. As suggested by Rosen (1994; see also March & Simon, 1958), the absence of scientific knowledge as a source of guidance may accentuate practitioners’ reliance on organizational policies and regulations (cf. above). In addition, practitioners may choose to primarily base their judgements and decisions on norms outlined in the “professional ethics” of social work (cf. Rosen 1994). Moreover, factors associated with the individual practitioners may also influence their assessments and choices of interventions. In fact, research has suggested that social workers rate their own personal characteristics (e.g. Dellgran & Höjer, 2003) and their own working experiences, including lessons learned from the sharing of experiences among colleagues (e.g. Bergmark

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16 Client-treatment matching has been defined as the “…attempt to select a specific candidate for a specific method of intervention in order to achieve specific goals” (Glaser & Skinner, 1981, p. 302).
& Lundström, 2002), as far more important sources of knowledge for practice, by comparison with scientific research. Finally, the professional basis of social work comprises a number of different theories of human behaviour (Schriver, 1995), which may differentially influence the work conducted by individual social work practitioners.

To conclude, the contexts and conditions that shape (and reshape) social work practice are many. Accordingly, when investigating predictors of social workers’ professional judgements, researchers need to consider not only factors that are associated with the individual clients (who customarily constitute the objects of the judgements of interest), but also characteristics of the individual practitioners who are making the judgements, as well as factors that are characteristic of their workplaces.

**The factorial survey approach**

**General principles of the factorial survey approach**

According to Rossi and Nock (1982), the principal objective of the factorial survey design is to uncover the “shared and idiosyncratic principles of judgements” (p. 10). This objective is grounded in the assumption that judgements of social objects are socially and individually structured. That judgements are socially structured means that there is some level of agreement among people in a given society (or in a smaller group) as to the factors that it is important to take into consideration when making a specific judgement (Rossi & Anderson, 1982). That judgements are individually structured implies that “each individual tends towards consistency in his or her own judgements” and that he or she may be assumed to depart from the socially agreed-upon principles of judgement in a relatively consistent way (Rossi & Anderson, 1982, p. 17).

The main elements of factorial surveys are the vignettes (also referred to as factorial objects, see Rossi & Anderson, 1982) that are judged by the respondents. For respondents in an FSA study, vignettes are fictive.

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17 Individuals may naturally make inconsistent judgements, and hold contradictory beliefs. However, such inconsistency is more likely to be present (and to be tolerated by the individuals themselves) when the judgements and beliefs in question are associated with different belief systems (which relate to different spheres of life) than when they belong to the same belief system (Rydgren, forthcoming).
descriptions of social objects, constituted either of people or of social situations (cf. Alexander & Becker, 1978). For the researchers in charge of the study, the vignettes represent different combinations of levels (values) of various dimensions (variables), which are included on account of their presumed relevance as determinants of the judgement of interest. Table 1 shows the dimensions, levels and wordings chosen for the vignette design associated with Study II. In this particular study, each of 205 social workers from 36 social services agencies in Stockholm County judged the suitability of either inpatient or outpatient treatment for fifteen uniquely constructed fictive problem substance users. The vignette design employed in this study consists of twelve dimensions, eleven of which were selected on the basis of their presumed relevance as determinants of the judgement under study (for further information, see Study II). For each of the eleven varying dimensions, between two and five levels were specified. In FSA terminology, the compilation of all possible combinations of dimension levels is referred to as the vignette universe. The vignette universe of the design employed in this study consists of the (Cartesian) product of the levels attached to the twelve dimensions, that is $5 \times 3 \times 3 \times 2 \times 2 \times 2 \times 2 \times 1 \times 3 \times 2 \times 2 = 25,920$ different vignettes.

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18 The dimension “physical health status” is a constant, and is treated as a control variable.
<table>
<thead>
<tr>
<th>Dimensions and levels</th>
<th>Wordings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Primary drug</td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>Consumes large amounts of alcohol</td>
</tr>
<tr>
<td>Amphetamines, oral</td>
<td>Uses amphetamines orally</td>
</tr>
<tr>
<td>Amphetamines, injection</td>
<td>Injects amphetamines</td>
</tr>
<tr>
<td>Heroin, oral</td>
<td>Smokes heroin</td>
</tr>
<tr>
<td>Heroin, injection</td>
<td>Injects heroin</td>
</tr>
<tr>
<td>2. Treatment experiences</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>Has never previously undergone treatment</td>
</tr>
<tr>
<td>Outpatient</td>
<td>Has previously undergone outpatient treatment</td>
</tr>
<tr>
<td>Inpatient</td>
<td>Has previously undergone inpatient treatment</td>
</tr>
<tr>
<td>3. Treatment preferences</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>Does not express a preference regarding treatment form</td>
</tr>
<tr>
<td>Outpatient</td>
<td>Would like the opportunity to stay at home during treatment</td>
</tr>
<tr>
<td>Inpatient</td>
<td>Wishes to get away from home during treatment</td>
</tr>
<tr>
<td>4. Partner</td>
<td></td>
</tr>
<tr>
<td>No partner</td>
<td>Is single</td>
</tr>
<tr>
<td>Partner with no misuse</td>
<td>Lives together with partner, who is not misusing substances</td>
</tr>
<tr>
<td>Partner with misuse</td>
<td>Lives together with partner, who is also misusing substances</td>
</tr>
<tr>
<td>5. Social network</td>
<td></td>
</tr>
<tr>
<td>Supportive network</td>
<td>Has support from friends and acquaintances</td>
</tr>
<tr>
<td>No supportive network</td>
<td>Lacks support from friends and acquaintances</td>
</tr>
<tr>
<td>6. Living arrangements</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>Has a place to live</td>
</tr>
<tr>
<td>Unstable</td>
<td>Has an unstable housing situation</td>
</tr>
<tr>
<td>7. Work status</td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>Has a job</td>
</tr>
<tr>
<td>No work</td>
<td>Does not have a job</td>
</tr>
<tr>
<td>8. Mental health status</td>
<td></td>
</tr>
<tr>
<td>No problems</td>
<td>Has no known problems with mental health</td>
</tr>
<tr>
<td>Problems</td>
<td>Has mental health problems</td>
</tr>
<tr>
<td>9. Physical health status</td>
<td></td>
</tr>
<tr>
<td>No problems</td>
<td>Has no known problems with physical health</td>
</tr>
<tr>
<td>10. Age</td>
<td></td>
</tr>
<tr>
<td>Old</td>
<td>A 57-year-old</td>
</tr>
<tr>
<td>Middle aged</td>
<td>A 37-year-old</td>
</tr>
<tr>
<td>Young</td>
<td>A 22-year-old</td>
</tr>
<tr>
<td>11. Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Man</td>
</tr>
<tr>
<td>Female</td>
<td>Woman</td>
</tr>
<tr>
<td>12. Children</td>
<td></td>
</tr>
<tr>
<td>No children</td>
<td>There are no children in the household</td>
</tr>
<tr>
<td>Children</td>
<td>Lives with children</td>
</tr>
</tbody>
</table>
Figure 1 displays one of the vignettes included in this vignette universe (the figure also includes details about the introductory statement and about the rating task).

Figure 1. An example of a vignette (Study II)

This question presupposes a rehabilitative intervention, i.e. an intervention that aims to bring the client’s substance misuse to an end once and for all. For each of the 15 fictive clients presented in the following, we ask you to state whether you judge inpatient or outpatient treatment to be the most adequate treatment option.

The client is a 37-year-old woman who consumes large amounts of alcohol. She has previously undergone outpatient treatment and now wishes to get away from home during treatment. The client has a place to live but she does not have a job. She lives together with her partner, who is not misusing substances, and there are no children in the household. The client lacks support from friends and acquaintances but has no known problems with her physical or mental health.

☐ Inpatient treatment
☐ Outpatient treatment

As indicated above, the factorial survey approach has often been referred to as a “hybrid” technique which combines the factor orthogonality – i.e. perfect non-association between dimensions – that is characteristic of the balanced multivariate experimental design with the rich detail and complexity that may be obtained using sample survey procedures (Rossi & Anderson, 1982). By letting each of the dimensions included in the vignettes vary independently with respect to its levels, factor orthogonality is obtained across dimensions in the vignette universe. By having respondents judge a randomly or systematically drawn sample from the vignette universe, instead of having them judge all possible combinations of dimension levels (which is the case in factorial experiments, cf. Rossi & Nock, 1982), it is possible to include a large number of vignette dimensions and levels in the design, thereby “enhancing the resemblance between real and experimental worlds” (Rossi & Anderson, 1982, p. 16).

The presence of approximate factor orthogonality in the samples of vignettes that are judged by the respondents makes it possible for the researchers to disentangle the unique effects of dimensions that are
normally very highly correlated. For example, in Study II, we were able
to make a distinction between the effect of the clients’ primary drug on
social workers’ judgements and the effects of variables describing the cli-
ents’ social situation (e.g. social network, living arrangements). However,
the factorial survey approach does not fully meet the requirements of a
“true” experiment (cf. Campbell & Stanley, 1966). Such an experiment
has three characteristics: (a) manipulation of an independent variable;
(b) control of nuisance (or confounding) variables; (c) careful recording
or observation of the change in the dependent variable (Peng, 2004). Re-
searchers who employ the factorial survey approach may manipulate
independent variables and record changes in the judgements made by
respondents. However, it is not possible to fully control for potentially
confounding variables. Although such variables may be controlled for by
the incorporation of constant dimensions in the vignettes (see below), the
researchers in charge cannot be expected to fully conceive of all the non-
observed potentially relevant variables that might be systematically asso-
ciated with the information provided in the vignettes. Therefore, the fac-
torial survey approach should rather be described as a quasi-experiment.

Benefits and limitations of the factorial survey approach

In traditional public opinion research, individuals’ judgements are
most frequently measured by direct methods, which involve asking ques-
tions or providing statements and recording the respondents’ answers to
these (DeLamater, 1992). By comparison with these types of measures,
the factorial survey approach presents a number of advantages. First,
because it involves presenting respondents with concrete and detailed
descriptions in which several different factors believed to influence the
judgement being studied are systematically varied, the approach is better
suited to studying the contexts and conditions affecting judgements. Sec-
ond, because respondents in factorial survey studies are most probably
not fully attentive to the manipulation – i.e. the controlled variation – of
the different elements of the vignettes, the judgements detected by such a
design may arguably be less subject to social desirability bias than those
Finally, because people are not always aware of the influences certain
factors have on their judgements – and are thus incapable of explicating
such influences when asked about them – it has been argued that the
factorial survey approach is particularly appropriate when researchers want to study the actual determinants – or combinations of determinants – of human judgements (Alexander & Becker, 1978).

Some of the problems of validity that affect traditional social survey research – such as the respondents’ limited access to the cognitive contents of their judgement-making and their potential wishes to provide socially desirable responses – naturally also plague the accounts given by individuals in un- or semi-structured face-to-face interviews, which constitute fairly common methods for studying professional judgements (e.g. Ekendahl, 2004). As suggested above, the factorial survey approach represents a method whose use may enable researchers to deal with these issues, at least to a certain extent. Another rather widespread method for investigating professional judgements is the traditional case vignette (e.g. Schuerman, Rossi & Budde, 1999; Osmo & Benbenishty, 2004; Skogens, 2005; Stranz, 2007). This type of vignette also consists of information that is presumed to be relevant for the judgement of interest. However, in contrast to the FSA design, this information is not systematically manipulated. Although the data collected in traditional case vignette studies may, due to the large degree of standardization of the judgement object, be used in order to compare practitioners’ judgements, they cannot – in contrast to factorial survey data – form the basis for conclusions as to how the separate pieces of information in the vignette influence these judgements.

Because it is possible to manipulate the independent variables of FSA designs, the results from studies based on this approach commonly enjoy high levels of internal validity. As is the case with most experimental designs, however, the high levels of internal validity are bought at the expense of the external validity of the study results. In the methodological debate surrounding the use of the factorial survey approach, some researchers are critical of the fact that some of the vignettes presented to the respondents combine elements that seldom co-occur in the real world (due to the approximate factor orthogonality characteristic of the vignette samples). In a comment on Alves and Rossi’s FSA article published in

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19 “Internal validity refers to the confidence with which researchers can make causal inferences from the results of a particular empirical study” (Brewer, 2004, p. 502).

20 “External validity is a property that allows research findings to be generalised to a larger population” (Ondercin, 2004, p. 360).
the American Journal of Sociology in 1978, for example, Faia (1980) argued that studies which make use of such "unrealistic" descriptions unavoidably generate unrealistic results, since the respondents, when presented with unusual combinations of dimension levels, may start making judgements that do not accurately reflect the principles that they would have used had the vignettes been realistic. In response, Rossi and Alves (1980) argued that it is the judgements made of statistically infrequent combinations of characteristics that most clearly reveal the respondents’ true principles of judgement. Another common critique of vignette methods in general is that results based on respondents’ judgements of fictive objects cannot be straightforwardly generalized to their judgements of real objects (cf. Hughes, 2004). Yet, the fictive aspect is a sine qua non\textsuperscript{21} of FSA designs, and study designs involving judgements of real objects are often not an option for researchers who want to enjoy the particular benefits associated with the factorial survey approach.\textsuperscript{22} Naturally, the validity of the results from a particular factorial survey study would be further strengthened if it were possible to compare the results with those of studies that make use of other methods of investigation. Liker (1982), for example, compared the results from a factorial survey on judgements of family prestige with those from a survey in which the respondents had evaluated the prestige of families whom they knew. One of his conclusions was that “vignette analysis does not bias the mechanisms underlying [real-world] judgment processes” (Liker, 1982, p. 139). Nonetheless, Rossi (1979) has insisted that authors of FSA studies should pay continuous attention to the issue of the realism of their results.

At times, authors of factorial surveys have wished to deduce individuals’ prospective actions from their judgements of the vignettes (e.g. Nagin & Paternoster, 1993). This habit of presuming an “attitude-action” link is not unproblematic, since there is no necessary relationship between an individual’s judgement, as measured by means of a questionnaire, and the same individuals “anticipatory set or tendency” to act in a certain way (LaPiere, 1934, p. 236). However, as of today, there is a body of research that supports the contention that judgements (attitudes) and

\textsuperscript{21} This expression characterizes something as “absolutely indispensable or essential” (Merriam-Webster Online Dictionary, 2008).

\textsuperscript{22} In studies of individuals’ judgements of real social objects, it is not possible to control and manipulate the information used by respondents when making judgements.
actions are, at least, correlated (cf. Eagly & Chaiken, 1998). Although the object of interest in the empirical studies presented in this thesis is social workers’ professional judgements rather than their professional actions, it is presumed that the principles of judgements detected in our factorial survey studies are, at least to some extent, echoed in the practitioners’ daily work with their clients.

Finally, there is always the question about the ethics of experimentation (cf. Shadish, Cook & Campbell, 2002). Contrary to some other forms of (quasi-) experiments, the conduct of an FSA study does not involve any major intervention into the lives of individuals. Rather, all that the respondents need to do is to fill out a questionnaire. However, there is no doubt that some would consider the rather “invisible” manipulation of variables in the objects to constitute a form of “deceiving” of the study respondents. Because most FSA data are analysed at the aggregate level (see Study I), and since the respondents are, as a rule, anonymous, this need not constitute a problem for the individual respondent. Nonetheless, care should be taken to ensure that the respondents feel at ease when they respond to the questions.²³ As far as studies of professional judgements are concerned, the fact that practitioners’ judgements may greatly affect the future well being of their clients (see above) is sufficient to motivate a study with a factorial survey design.

**The construction of a factorial survey design**

In this section, I will describe the steps and some of the considerations involved in the construction of an FSA design, with examples borrowed from my own research (Study II and Study III). The initial step in the construction of such a design may be described in terms of a “three-stage rocket”. First, the researchers in charge must determine which dimensions should be included in the vignettes. Second, they must decide how to vary these dimensions, that is which levels (cf. values) these dimensions should be allowed to assume. Finally, agreement must be reached on how to formulate the dimension levels. The considerations that accompany

²³ For example, as part of the instructions given to the respondents in association with the data collection for our study of professional judgements in substance misuse treatment, it was communicated to the respondents that the aim of the study was not to evaluate the practitioners’ judgements in relation to some “true” criteria, but rather to “map” their professional judgements and choices of interventions for problem substance users.
these respective decisions are many. When it comes to the selection of dimensions for the vignettes, it must first be decided which dimensions are relevant for the study. These should include both those that are regarded as plausible determinants of the judgement of interest, and those that might constitute so-called confounding variables (see below). According to Jasso (2006), the selection of dimensions for the vignettes ought to be guided by “prior theory and research, extra-theoretical reasonings, and conventional wisdom” (p. 342). The selection of dimensions and levels for the designs employed in our study of professional judgements in substance misuse treatment, for example, was preceded by a thorough review of existing research, standardised assessment instruments and present legislation (for more details, see Study II and Study III). With the aim of supplementing this information, and of learning more about the typical concepts and expressions used by social workers when describing clients, we also conducted a preliminary study designed to take the form of a “reverse” vignette study. Thus 39 social workers (none of whom were included in the main study) were asked to describe what type of client they would normally consider suitable for each of the treatment options included in the study. The client descriptions provided by the respondents in the pre-study were analysed by what is referred to as quantitative (thematic) text analysis (cf. Roberts, 1997). Thus, each of the client cases was categorized into the variables and values making up the description. Subsequently, the variables and values associated with the “typical” clients for each of the treatment options were counted and compiled (see Appendix I).\textsuperscript{24} On the basis of all the information that had been assembled, we decided which dimensions were to be treated as potential determinants of the judgements of interest, and which dimensions should be considered as potentially confounding variables. When it comes to this latter issue, it has already been indicated in this introduction that a constantly present “threat” to the internal validity of a factorial survey study is that respondents make associations between the dimensions that are included in the design and (excluded) variables with which they are correlated in the real-world. This means that respondents might unconsciously add pieces of information to the fictive descriptions – information that might then systematically and invisibly

\textsuperscript{24} The results from the pre-study were written up and reported back to each of the 39 social workers involved in the preliminary study.
influence the judgements under study. In order to secure the validity of the results, any such information must be controlled for in the design. For example, when constructing the vignettes employed in Study II, we assumed that the client’s physical health condition would not be an important determinant of practitioners’ judgements. Logically, we would have excluded this particular variable from the design. At the same time, we could not know for certain that the respondents would not consider the physical health status of the clients when choosing between inpatient and outpatient treatment. If this had been the case, they might easily, and incorrectly, have inferred the clients’ health status from other dimensions, such as the clients’ age, for example. Thus, in order to ensure that this variable would not confound the results, we controlled for health status by incorporating a “constant” physical health status dimension, that is a dimension with only one dimension level, into the vignettes.

Subsequent to the initial selection of relevant dimensions, it must be decided whether all of these dimensions could in fact be incorporated into the vignette design. As pointed out by Batista-Foguet and his colleagues (1990), the inclusion of numerous dimensions in the vignettes automatically results in lengthy descriptions that must be read by the respondents. This may bring about respondent fatigue, which may in turn lead to decreased levels of reliability and validity in the findings. In the designs associated with Study II and Study III, we chose to limit the number of dimensions included to eleven. This decision was made despite the fact that the results from the pre-study had suggested that the number of potential determinants of practitioners’ judgements could be more than 20 (see Tables A3, A5 and A6 in Appendix I). Thus, we chose to exclude a number of variables whose potential effects might have been interesting to study. For example, as a result of many sessions of deliberation, we chose not to include an “ethnic background” dimension in the vignette designs. Although only one respondent in the pre-study had actually mentioned this variable in the descriptions of typical clients, the possibility cannot be ruled out that social workers’ judgements may in part be influenced by the client’s ethnic background. Our motives for finally

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25 This might have come naturally, since this variable was included as a dimension in the designs relating to the other three critical decisions investigated in this sub-study.

26 This number does not include the constant dimension “physical health” in Study II.
excluding this dimension from the designs were several\textsuperscript{27}, but one of them related to a desire not to increase the length of the vignettes.

The researchers in charge need to be equally careful when selecting the levels for the dimensions included in the vignettes. In point of fact, it is only possible to measure any effects of a given dimension on the judgements under investigation if the dimension levels chosen accurately capture potential variation in the judgements of respondents. Thus the more variation there is between the levels chosen for any one relevant dimension, the more likely it is that the actual effects of this particular dimension on the judgements will be detected in the analyses. However, the researchers need to be careful not to choose levels that are too determinative of the judgement in question. To take one example: if we had chosen the level “on the verge of dying” as representing the most fatal physical health condition in our study about social workers’ judgements about eligibility for compulsory care (Study III), all the vignettes in which this particular dimension level had been included would almost certainly have been judged as being “in need” of compulsory care. If this had been the case, it would have eliminated any possibility of analysing other potential determinants of social workers’ judgements in these particular vignettes. Finally, as far as the wording of the levels is concerned, these must be exact, so that all the wordings of the levels for a particular dimension fit in with the wordings of the dimension levels preceding and following this particular dimension in the text.

The second step in the construction of an FSA design is to draw one or more samples of vignettes from the vignette universe.\textsuperscript{28} These samples may be randomly or systematically drawn (for a thorough discussion about sampling techniques in factorial survey designs, see Dülmer, 2007). In our study of professional judgements in substance misuse treatment, separate vignette samples were randomly drawn for each of four decision situations. This was achieved by generating a series of random numbers for each of the dimensions involved (in Excel), and by translating these

\textsuperscript{27} These also included problems categorizing the “ethnic dimension” variable in a way that would render possible meaningful interpretations of the results, and problems formulating vignettes in which information about the ethnic background of the client would fit naturally.

\textsuperscript{28} If the total number of dimension-level combinations is not too high, each of the combinations making up the vignette universe may be judged by at least one respondent (see Study I).
numbers into textual descriptions (in a specially designed computer program). For each decision situation, 3,075 such descriptions were uniquely constructed – 15 for each of 205 respondents. Samples of vignettes that have been randomly drawn from the vignette universe are characterised by approximate “factor orthogonality” (perfect non-association between dimensions), and by approximate “symmetry” (all the levels of a particular dimension being equally represented). However, at times it might be necessary to impose restrictions on these two characteristics. For example, in order to avoid presenting respondents with illogical combinations of dimension levels, researchers may choose to eliminate such combinations from the vignette samples. This also means that the researchers incorporate correlations between selected dimensions into the design. In the designs employed in Study II and Study III, however, all possible combinations of dimension levels were deemed as biologically and theoretically possible.\(^{29}\) When limitations are imposed on the symmetry of the vignette samples, the vignette samples that are generated will be stratified. Such limitations were imposed in both vignette designs employed in this thesis, but for different reasons. First, in the design associated with Study II, the likelihood for the dimension level “alcohol” to appear in the vignettes was twice of that of the other levels included in the “primary drug” dimension (for details, see Study II). The reason for this was that we wanted the client groups representing the different substances (alcohol, amphetamines and heroin), and the forms of intake in relation to the narcotic drugs (oral and injection), to be of equal size.\(^{30}\) Second, in the design for Study III, the levels for the dimensions representing the special criteria in the legislation that regulates the provision of compulsory care (physical health / mental health / social situation / violent behaviour) were not equally represented in the vignettes. On the basis of the results from the pilot study\(^{31}\), where “too many” hypothetical clients (69\%) were judged as eligible for compulsory care, we decided to double the chance

\(^{29}\) However, in our study of social workers’ judgements about eligibility for social services care or treatment, we chose to exclude both the possibility for a 23-year-old individual to have a 15-year-old child and the possibility for a 58-year-old individual to have a 4-year-old child.

\(^{30}\) The presence of groups of equal size facilitates the testing of possible interaction effects between different dimensions.

\(^{31}\) The vignettes were tested on a sample of eighteen social workers (none of whom were included in the main study).
for the first level, i.e. the “no problem” level, to occur in the vignettes. By manipulating the vignette construction procedure in this way, we wanted to reduce, and in fact succeeded in reducing, the proportion of case vignettes judged as being eligible for compulsory care.

The last step in the construction of a vignette design concerns the presentation of the vignettes to the respondents. For researchers who choose to present their respondents with a whole series of vignettes (which is most often the case, see Study I), it may be relevant to include a small number of fully standardized vignettes – that is vignettes that do not vary in their dimensions – at the beginning of each series of vignettes. These vignettes are employed in order to decrease potential judgement biases from reading the initial vignette, and to be able to control for respondents’ rating tendencies (Ward, Lewis & Benson, 2002). In our study of professional judgements in substance misuse treatment, however, we chose not to include any such vignettes in our designs. First, because this study as a whole included two “sub-studies” (for more details, see below), and because each respondent rated as many as 65 vignettes in total, we did not want to impose any further assignments on them. Second, the first part of the questionnaire, which related to the second of the two sub-studies, comprised five traditional case vignettes (see Appendix II), which were identical for all the respondents. These case vignettes may have served as standardized vignettes in the sense that they might have reduced the judgement bias potentially introduced when the respondents were faced with different series of experimental vignettes in the second part of the questionnaire.

The analysis of factorial survey data

Linear regression analysis constitutes the most frequently used method for analysing the judgements collected in factorial survey designs (see Study I). In the analyses performed on the data, the vignette as a rule

32 It is desirable that the responses to the vignettes are evenly distributed across the response options.

33 In the main study, 34 percent of the case vignettes were judged as eligible for compulsory care.

34 Each respondent rated five traditional case vignettes (sub-study one) and fifteen uniquely constructed FSA vignettes for each of four decision situations (sub-study two).
constitutes the unit of analysis. When the respondents have judged multiple vignettes, which is most often the case, the data has a hierarchical structure by design. This means that the judgements made by respondents are clustered (or “nested”) within respondents (cf. Snijders, 2004). When such data are analysed by means of “traditional” regression techniques, one of the primary assumptions of regression analysis is violated, namely that of the statistical independence of errors (Lewis-Beck, 1980). One way of solving this problem is to make use of multilevel regression analysis – an analytical technique that has been specially developed for the analysis of data with a hierarchical structure (for an extensive discussion of why and how to combine factorial survey data and multilevel analysis, see Hox, Kreft & Hermkens, 1991; for alternative ways of solving the problems introduced as a result of potential “intra-rater correlation” (cf. Rossi & Anderson, 1982, see Study I).

The multilevel regression model presupposes that there is a hierarchical data set, with a single dependent variable measured at the lowest level, and with the possibility of defining explanatory variables at all levels of the model. The data produced in an FSA study commonly have a structure comprising two levels. However, when the object of interest consists of professional judgements, the researchers in charge may also be interested in specifying contextual determinants of the respondents’ judgements (see above). Thus the initial sampling frame for such a study may consist of the practitioners’ workplaces rather than of the practitioners themselves. If this is the case, the respondents who take part in the study will be clustered within their workplaces, which means that the dataset also reflects a “natural” hierarchy. In sum, such a study design would produce a hierarchical dataset with three levels. In Study II and Study III, for example, we used a three-level model, with vignettes specified as Level-1 units ($n = 3,075$), while the respondents constituted Level-2 units ($n = 205$) and the social service agencies constituted Level-3 units ($n = 36$). In the literature, a sample size of 36 at the highest level is generally regarded as rather small.\footnote{One of the suggestions put forward in the literature is that the highest-level sample size should be at least 100 (cf. Hox, 2002). However, as has been noted by Maas and Hox (2005), many multilevel analyses have been performed on samples involving approximately 50 units at the highest level. A large simulation study carried out in order to determine the influence of different sample sizes on the accuracy of results from multilevel linear regression analysis suggested that with a sample size of as little as 30 units, the regression coefficient estimates, the variance components estimates and the}
Snijders (2004) has suggested that the smallest acceptable sample size at the highest level in multilevel regression analysis is 20 units.

Multilevel regression models are typically divided into two parts: the fixed part, consisting of calculations of regression coefficients, their standard errors, t-values and probability values, and the random part, comprising the decomposition of the unexplained variance into variance components for each level. The simplest specification for the random part of a three-level model is a model in which only the intercept is allowed to vary across Level-2 and Level-3 units. This model is referred to as a “random intercept” model (Snijders, 2004). In “random slope” models, the regression coefficients specified at the lower levels of the model are also allowed to vary across units at the higher levels (Snijders, 2004). In our study of professional judgements in substance misuse treatment, we employed random intercept models for the main analyses.

Because the outcome variables in our studies are binary, we made use of multilevel logistic regression analysis. Figure 2 displays the formula for Model II in Study II (a model that simultaneously includes client-, respondent- and contextual variables as predictors of social workers’ choices between inpatient and outpatient treatment). As can be seen, this model does not include a Level-1 error term. In fact, when the model follows a binomial distribution, the lowest level variance is fully determined when the mean is known, as a result of which there is no Level-1 variance component to display (Hox, 1995).

In addition to the random intercepts models, we explored the existence of so-called “cross-level interaction” effects, that is effects of interactions between independent variables specified at different levels of the model (cf. Snijders, 2004).
Figure 2. A random-intercepts multilevel logistic regression model with three levels (Study II)

**Level-1 Model**
\[
\text{Prob}(Y=1|X,Z,V) = P \\
\log\left[\frac{P}{1-P}\right] = P_0 + P_1X + \ldots + P_{11}X_{11}
\]

**Level-2 Model**
\[
P_0 = B_{00} + B_{01}Z_{01} + \ldots + B_{04}Z_{04} + R_0
\]

**Level-3 Model**
\[
B_{00} = G_{000} + G_{001}V_{001} + \ldots + G_{005}V_{005} + U_{00}
\]

- \(P\) = Level-1 regression coefficients
- \(X\) = Level-1 predictors
- \(B\) = Level-2 regression coefficients
- \(Z\) = Level-2 predictors
- \(R\) = Level-2 variance component
- \(G\) = Level-3 regression coefficients
- \(V\) = Level-3 predictors
- \(U\) = Level-3 variance component
Background, aims and contents

The structure of the current thesis has evolved gradually over the years. It started with a project (co-organized with Professor Jan Blomqvist) in which the factorial survey approach was applied to the study of professional judgements in Swedish substance misuse treatment. As a result of my developing acquaintance with the approach, including as it did recurrently searching for and delving into literature about this method, and giving lectures and seminars on the topic, I started to realize that knowledge about the factorial survey approach was rather poor within the sociological research community, at least in Europe. Consequently, I decided to make an attempt to collate information about how the factorial survey approach has been used over the years by sociologists. Finally, having gone through a fairly large number of articles reporting findings from FSA studies, some of which had also investigated professional judgements, I felt an urge to organize and systematize the theoretical and analytical basis for studying professional judgements (with an emphasis on social work) by means of the factorial survey approach. Consequently, and as reported above, the aims of this thesis are threefold: First I explore the use of the factorial survey approach in sociology between 1982 and 2006 (see Study I). Secondly, I apply the factorial survey approach to the study of professional judgements in Swedish substance misuse treatment (see Study II and Study III). Thirdly, I present a conceptual and analytical framework for the application of this approach to the study of professional judgements in social work (see Study IV). The review article, referred to as Study I, will need no further introduction. However, I will proceed below to provide some further background information in relation to the three subsequent papers.
Investigating professional judgements – the case of social work and substance misuse treatment in Sweden

The Swedish Social Services Act (2001:453, Chapter 5, Paragraph 9) clearly states that it is the responsibility of the municipal social services to provide each problem substance user with the type of help and care that he or she needs in order to overcome his/her substance misuse. Even though problem substance users may as of today also receive assistance from other helping organizations, the social services provide for about two thirds of the substance misuse treatment services in Sweden (Room, Palm, Romelsjö, Stenius & Storbjörk, 2003). As a rule, the social service agencies consist of a number of separate units, of which one is usually referred to as a “substance misuse” unit or an “adult” unit. One of the major work activities for the social workers employed at these units is to investigate and assess the needs of individuals who come into contact with the social services as a result of problems related to alcohol or narcotic drugs. These individuals make up a heterogeneous group, with different problem profiles, different personal and social resources, and different life experiences (cf. Blomqvist, 1998). At the same time, the social services’ substance misuse treatment system consists of a mix of short- and long-term care and treatment programs, which may be carried out either in residential or outpatient settings, and which make use of a variety of methods (Oscarsson, 2000). In addition to these voluntary treatment services, the social services may also apply for compulsory care, the provision of which is regulated in the Care of Abusers (Special Provisions) Act (1988:870). Given the heterogeneity both of the clients’ needs and of the supply of treatment services, combined with the fact that each problem substance user is entitled according to the legislation to the help that he or she needs in order to overcome his/her substance misuse, the social workers employed in the municipalities inevitably need to make judgements about which interventions may be the most suitable for which clients.

37 Problem substance users may also receive help from non-profit organizations or from providers within the health care system (cf. Room, Palm, Romelsjö, Stenius & Storbjörk, 2003).

38 The target group of the “adult” units consists both of clients with substance use problems and of clients with other psychosocial problems.
As noted above, there is to date very little scientific knowledge about what interventions work best for which problem substance users (e.g. Project MATCH Research Group, 1997; The Swedish Council on Technology Assessment in Health Care, 2001; see also NBHW, 2007). Taking account of this, it has frequently been implied that social workers’ choices of interventions for problem substance users have been based on other, less “legitimate” grounds. For example, Oscarsson (2000) has maintained that these choices are “less influenced by evidence-based knowledge in the social services, and more [influenced] by considerations relying on historical patterns, trends in the treatment sphere, or by economic conditions” (p. 96). Even though suggestions such as the one above may have been correct at the time they were expressed, they have never been thoroughly grounded in research. It is a fact that at the beginning of this decade we knew very little about how and why a particular problem substance user was “matched” to a particular form of intervention (previous research includes e.g. Blomqvist, 1991; Holmberg, 1992; Ekendahl, 1999). Thus, in order to find out more about the professional judgements that are part of the process of referring problem substance users to social service interventions, we initiated a large-scale project entitled as “Who is recommended which substance misuse treatment?” This project was initiated during the autumn of 2001, and was located at the Unit for Research and Development at the Social Services Administration in Stockholm City.39 The project was organized in the form of two sub-studies. The primary aims of the first of these studies were to investigate the degree to which there is any professional consensus about “who should receive which intervention”, to find out more about the rationales associated with social workers’ choices of interventions for problem substance users and to study whether social workers’ judgements vary by context and if so why (Blomqvist & Wallander, 2004).

The aim of the second study was to estimate predictors of practitioners’ judgements and choices between various forms of substance misuse interventions. More specifically, we wanted to investigate the predictors of practitioners’ judgements associated with four so-called “critical”

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39 The project was funded by The National Board of Institutional Care (Project number 2.200/0019.3).
decisions\textsuperscript{40}, that is decisions that must customarily be made before the initiation of any form of intervention. A first decision concerns whether or not a given substance user is eligible for social services provision (this includes the decision about whether or not this person needs “organized” help)\textsuperscript{41}. Second, practitioners need to decide whether the intervention, as organized by the social services, should have the objective of “curing” (rehabilitation) or of “caring” (care/harm reduction). Third, for any intervention aimed at rehabilitation, it needs to be decided whether the intervention ought to be carried out in a closed setting (inpatient treatment) or in an open setting (outpatient treatment).\textsuperscript{42} Finally, any decision about initiating voluntary treatment must have been preceded by the judgement, on the part of the practitioner(s), that the client is not in “need” of compulsory care.

Study II and Study III in this thesis report the results from the two latter decision situations (for a full report from the second part of the project, see Wallander & Blomqvist, 2005). The distinction between inpatient and outpatient substance misuse treatment – which concerns only the formal structure of treatment provision, i.e. the treatment setting – is today well-established as a way of characterising treatment modalities not only in Sweden (cf. NBHW, 1996, 1998), but also in other countries, for example the United States (cf. Lordan, Kelley, Peters & Siegfried, 1997). While inpatient treatment is distinguished from outpatient treatment by the fact that the client is temporarily a resident of the place where the treatment takes place, one assumption employed in this study is that both inpatient and outpatient treatment refer to rehabilitation, i.e. an intervention that aims to bring the client’s substance misuse to an end. The term compulsory care refers to care delivered in accordance with the criteria

\textsuperscript{40} A “critical” decision may also be referred to as a choice point, which has been defined as “a position in a sequence of events at which a choice or decision must be made” (APA, 2007).

\textsuperscript{41} There is evidence from research that people may indeed recover from substance misuse without the help of organized (or formal) treatment. In the research literature, this has been referred to as “self-change” (Klingemann, Sobell, Barker, Blomqvist, Cloud, Ellingstad et al., 2001) and “spontaneous recovery” (Blomqvist, 1996), for example.

\textsuperscript{42} Naturally, it must also be decided whether or not an intervention aiming at harm reduction should be carried out in a closed setting or in an open setting. However, this decision was not investigated in this study.
outlined in the Care of Abusers (Special Provisions) Act. In Sweden, the final decisions as to who is eligible for compulsory care are made by the county administrative courts. However, it is the social workers in the municipal social services who are the principal investigators of a client’s potential eligibility for compulsory care. (For a description of the development of substance misuse treatment in Sweden – with a focus on the provision of voluntary outpatient and inpatient treatment and compulsory care – see Study II and Study III).

The structure of our factorial survey design

As may be concluded from the general introduction above, social work practice is influenced – and regulated – by a number of factors, relating not only to the needs of the clients but also to characteristics of the individual practitioners and to factors associated with their contexts. Study II and Study III proceed from the assumption that these factors may influence not only the actual judgements and decisions made by practitioners in real-world practice, but also social workers’ professional judgements. Accordingly, the aim of Study II and Study III is to disentangle client, respondent and contextual predictors of social workers’ recommendations of interventions for problem substance users. With the intention of measuring client-level determinants of social workers’ judgements, relating to the choice between inpatient and outpatient treatment (Study II) and to the judgement about eligibility for compulsory care (Study III), we developed two factorial survey designs (for information about the preparations for the study and the construction of vignettes, see above). Among the client characteristics treated as potential predictors in both decision situations were those relating to the clients’ “substance misuse”, “treatment experiences”, “mental health status”,

43 These criteria are formulated as one general criterion, which must always be present when compulsory care is considered, and three special criteria, of which at least one must also be present. According to the general criterion, a compulsory care order should be issued for anyone who, as a result of an ongoing misuse of alcohol, narcotics or solvents, is in need of care to overcome this misuse, and where the need for care cannot be met in accordance with the Social Services Act (2001:453), or by some other means. The special criteria state that someone is in need of care if he, as a result of [substance] misuse: seriously endangers his physical or mental health, is at obvious risk of ruining his life, or if there are grounds to fear that he will harm himself or people close to him (The Care of Abusers (Special Provisions) Act 1988:870, Paragraph 4).
“social situation”, “sex” and “age” (for more details, see Study II and Study III).

In order to investigate potential effects of practitioner (respondent) variables on social workers’ professional treatment recommendations, we included as predictors in the (multilevel logistic regression) analyses variables relating to the respondents’ demographic characteristics (“sex” and “age”), educational background (“social work education”, “additional training/education”), “work experience”, work situation (“work position”, “workload”, “composition of clientele”, “work tasks”, the use of a “standardized assessment instrument”) and “attitudes” about substance misuse and its treatment. Among the contextual variables examined were those relating to the organizational context of the practitioners (“unit structure”, “unit finances”, “treatment availability”, “treatment priorities”, “compulsory care experience”) and those relating to characteristics of the local area (“problem prevalence”, “socio-economic character”).

Samples and data collection

Study II and Study III involved the use of three samples: a vignette sample (n = 3,075), a respondent sample (n = 205) and a sample consisting of social service agencies (so-called “contextual” units; n = 36). The data associated with the vignette sample (the respondents’ judgements of vignettes) and the respondent sample, were collected by the use of a questionnaire, which was filled out by all respondents (see Appendix II) during a three-hour visit from myself to each of the agencies involved in the study. Figures about the contextual units were collected partly via a postal survey, which was completed by the managers of the social service agencies (see Appendix II), and partly from data registers at the Stockholm Office of Research and Statistics, Statistics Sweden, The National Board of Health and Welfare, and the so-called “MAX-study” (see Ols- son, Adamsson Wahren & Byqvist, 2001; for further information about the samples and the data collection, see Study II and Study III).
As indicated in the introduction, and as further reported in Study I, the factorial survey approach has over the years been employed with the aim of studying professional judgements in various occupations. However, as of today, and to my knowledge, our factorial surveys in the area of substance misuse treatment constitute the only published FSA studies that have explicitly focused on social workers’ judgements. The lack of FSA studies in the field of social work has also been noted by Taylor (2006), who recently wrote an article with the specific purpose of introducing the factorial survey approach to the study of professional judgements in social work. In line with several other articles, the common aim of which has been to introduce this method to the study of judgements in nursing (e.g. Ludwick, O’Toole, O’Toole & Webster, 1999; Ludwick & Zeller, 2001; Lauder, 2002; Ludwick, Wright, Zeller, Dowding, Lauder & Winchell, 2004), Taylor’s (2006) article includes detailed and pedagogical descriptions and illustrations of the main stages of an FSA design. Incorporated into the article is also a comprehensive discussion about the benefits and limitations of this particular approach. However, Taylor (2006) has made no attempt to identify – at a more theoretical level – which particular aspects of professional judgements may be investigated using this approach. This is in line with contemporary practice in FSA studies of professional judgements. In fact, authors in this field of research seem to be generally content to assert that the factorial survey approach makes it possible to disentangle client, practitioner and contextual predictors of practitioners’ judgements (this also includes my own work). Moreover, the authors of the articles serving as FSA introductions to the fields of nursing and social work have not paid attention to the full potential of the factorial survey approach as a tool for modelling professional judgements. First, the hierarchical structure of FSA data – created by the very fact that each respondent judges multiple vignettes –

44 However, there may have been social workers present in groups of professionals referred to by other names, such as for example “case managers” (e.g. Degenholtz et al., 1999).

45 An exception to this is found in the articles by Ludwick and her colleagues (e.g. 2004), in which it is suggested that this method may be used in order to study practitioners’ definitions of concepts.
has as a rule been regarded as a nuisance (e.g. Taylor, 2006), because of the intra-rater error potentially introduced when the data are analysed by means of regression analysis (see above). As was noted by Hox and his colleagues more than fifteen years ago (Hox, Kreft & Hermkens, 1991), however, and as shown in Study II and Study III, factorial survey data may be combined with multilevel analysis, a technique that is particularly suited to the analysis of hierarchically structured data. Because multilevel analysis not only provides a solution to the problem of intra-rater error, but also renders possible additional ways of modelling the judgements under study, I argue that the structure of FSA data ought to be regarded as an asset of the design rather than as a weakness. Second, even though authors in the fields of health care and social work ought to be particularly attracted by the suggestion made by Rossi and Anderson (1982) that results from an FSA design may “be of interest to a counsellor concerned with providing guidance” (p. 54) to individuals, no attempt has been made to elaborate further on this idea.

Against this background, the aim of the final paper in this thesis (Study IV) is to provide a conceptual and an analytical framework for factorial surveys of professional judgements, with an emphasis on the occupation of social work. The focus is directed at developing a number of concepts that may capture the aspects of professional judgements potentially detected by this design. In addition, I present two systematic strategies for modelling social workers’ judgements: one strategy that is argued to be most suitable for large-scale studies of professional judgements, and one strategy that may be employed in professional development at the micro-level.

**Knowledge use in professional practice**

One of the central assumptions made in Study IV is that the factorial survey approach may be used in order to investigate practitioners’ use of knowledge as a basis for professional judgements. This assumption may be compared with that of Rosen (1993), who states that “practically every perception, judgement, and decision made in a professional role involves use of knowledge” (p. 94). In this thesis, the concept of knowledge is heuristically defined as those assumptions that contribute to the profession’s understanding of its own practice (cf. Rosen, 1994). According to this definition, that which is commonly identified as knowledge – i.e.
assumptions that have been verified by means of scientific inquiry – constitutes only part of the knowledge available for use in professional practice. Consequently, practitioners’ assumptions are recognized as knowledge whether or not they are (or would one day turn out to be) “true” in the scientific sense of the term.

According to Rosen (1994), empirical research about knowledge use in social work practice may by and large be classified into three categories. The first category consists of research focused on the question of what types (or forms) of knowledge are considered by practising social workers. To take one example, Rosen (1994) analysed the knowledge bases of the rationales used by a number of social work practitioners to support the decisions they made in relation to various tasks. One result from the study was that practitioners’ rationales were far more often grounded in values than in research-based or practice-based knowledge. The second category consists of studies whose aim is to investigate what actually constitutes knowledge use. Included in this category are also studies that deal with practitioners’ attitudes towards and consumption of knowledge. As far as Swedish social workers’ attitudes towards research are concerned, Dellgran and Höjer (2003) showed that more than 60 percent of the social workers who participated in their study considered research-based knowledge as central to their practice. However, a positive attitude towards research on the part of the social workers does not necessarily imply that these practitioners will actively look for and disseminate this form of knowledge. For example, Bergmark and Lundström (2002) showed that some of the most central Nordic-based scientific journals in social work were either unknown to or not read by more than 90 percent of the social workers who participated in their study. The third category of research on knowledge use involves research focused on the purpose for which knowledge is used in practice. In a recently published article, for example, Osmond (2006) explored ten different functions of the knowledge used in social work practice. These included awareness, prediction, alerting, comparison, generalization, direction of practice behaviour, promoting an attitude and/or ethical stance, education, rapport development and problem solving.

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In studies based on the quasi-experimental factorial survey design, it is not possible to explore what forms of knowledge are used in professional practice, what actually constitutes knowledge use or to what purpose knowledge is used. Instead, these dimensions of knowledge use must be “taken for granted”, and they should be included in the theoretical framework that serves to guide the interpretation of results. As far as the question of what actually constitutes knowledge use (in judgements) is concerned, factorial survey respondents’ knowledge use is deduced from the (potentially) established relationships between the input (the information provided in the vignettes) and the output (the judgements made by the respondents). Accordingly, it is assumed that the respondents use knowledge in order to link the separate pieces of information about the clients to the various judgement options (for examples, see Study IV). Consequently, in cases where there is no relationship between a particular vignette dimension and the respondents’ judgements, it may be concluded that the respondents have not applied knowledge (or at least not the same knowledge) associated with this dimension to their assessments of the vignettes. In sum, it might be concluded that studies based on an FSA design investigate the knowledge actually used by respondents when making professional judgements in relation to fictive clients.

When it comes to the forms of knowledge whose use might be investigated using the factorial survey approach, I argue that the most frequently used concepts of knowledge in the social work literature – evidence-based knowledge (e.g. Gambrill, 1999) and practice wisdom (e.g. Dybcz, 2004) – are not well suited to serve as theoretical bases for investigations into the knowledge actually used in professional judgements. One reason for this is that these concepts include assumptions about the origins of knowledge. In fact, the disclosure of the source of knowledge (research or practice) used in the performance of a particular task tells us nothing about the actual content of this knowledge. In effect, the substantive propositions derived from scientific knowledge might also arise from practice experience, provided that the same regularities that form the basis for scientific results are also noticeable in real-world practice. Further, there is evidence from research that the process of applying

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47 Evidence-based knowledge includes knowledge originating in scientific research, while practice wisdom, according to most definitions (for an overview, see Dybcz, 2004), primarily stems from practical experience or from personal experience in other fields of life.
scientific knowledge in practice involves a transformative element, whereby the knowledge previously gained is adapted to the conditions of the particular situation (e.g. Daley, 2001). Thus, when evidence-based knowledge is applied in practice, it inevitably becomes intertwined with knowledge originating in practice. In Study IV, I argue that the empirical study of knowledge use in professional judgements warrants concepts of knowledge that are not dependent upon particular sources of origin. A number of such concepts are subsequently discussed.

Finally, the purpose of the knowledge used ought to be given by the particular FSA design. In Study IV, I maintain that this method is very well suited to the study of those professional judgements made in association with the dual tasks of “diagnosis” and “treatment” (cf. Abbott, 1988, 1995). The task of diagnosis, including as it does the collecting of information about the client and the forming of a professional opinion about the current status of the client (case/problem formulation; Abbott, 1988), requires the use of knowledge aimed at description (e.g. Rosen, Proctor & Staudt, 1999). Treatment (cf. prescription), which according to Abbott’s (1988) definition includes suggesting interventions or treatments that are deemed to be the most suitable for the particular diagnosis found, involves the use of knowledge aimed at control (e.g. Rosen et al., 1999). Moreover, in association with other tasks of professional practice, judgements might be made that necessitate the use of knowledge aimed at explanation (e.g. Rosen et al., 1999). However, this latter function of knowledge use is not discussed in relation to the theoretical framework outlined in Study IV.

48 “Descriptive knowledge guides practitioners in classifying phenomena they encounter into meaningful conceptual categories” (Rosen et al., 1999, p. 5).
49 Control knowledge is used in order to “enhance practitioners’ ability to control a phenomenon of concern – that is, the ability to change it (ameliorative function) or maintain its desired course (preventive function)” (Rosen et al., 1999, p. 5).
50 “Explanatory knowledge is knowledge that provides insight into and understanding of the phenomena of concern – their dynamics, factors influencing their variability, and their consequences” (Rosen et al., 1999, p. 5).
Summaries of the studies

Study I

Study I consists of an overview of the various ways in which the factorial survey approach has been applied within sociology between 1982 and 2006. The review comprises 106 factorial survey studies written in English and published in central sociological journals between 1982 and 2006 (for details about the search strategies employed and the criteria for inclusion, see Study I). The study is organised into three different sections: “factorial survey applications”, “factorial survey designs” and “factorial survey analyses”.

The first part of the review (factorial survey applications) provides details of the sub-discipline affiliations of the 106 articles, of the various forms of judgements that have been studied by the use of the factorial survey approach and of the respondents in the different studies. The results show that a large majority of the studies reviewed were carried out in the United States. Further, nearly half of them dealt with issues relating

51 The searches followed a two-step procedure: First, I searched the “Social Sciences Citation Index” for articles that included references to the works edited by Rossi and Nock in “Measuring Social Judgments” (1982). Subsequently, I searched several social sciences databases for articles in which the term “factorial survey” appeared anywhere in the text, as well as articles where the terms “Rossi” and “vignette” (“vignette*”) appeared anywhere in the text. Literature searches are often evaluated in terms of their “sensitivity” and “specificity”. While the term sensitivity refers to the “proportion of all studies that were retrieved by the search”, that of “specificity” refers to the “proportion of studies that were retrieved, that were relevant” (Petticrew, 2006, p. 83). Although the sensitivity of particular search strategies may never be fully specified (due to the fact that it is not possible to determine the true number of studies theoretically available), it should be noted that there were large overlaps between databases in the matches of articles, and that several of the databases that were searched did not generate any further material at all. These included “Applied Social Sciences Index and Abstracts”, “Education Resources Information Center”, “International Bibliography of the Social Sciences”, “PAIS International”, “Social Services Abstracts” and “Studies on Women and Gender Abstracts”. When it comes to the specificity of the search strategies employed, the reference search in the Social Sciences Citation Index produced a fairly large proportion of relevant studies (76/193 = 0.39). It should be noted that this proportion would have been even higher if the review had also included factorial survey articles published in non-sociology journals (see Study I). In the second search (see above), a large proportion of the matches turned out to be irrelevant to this study. This is naturally due to the fact that the compilation of articles retrieved by the use of the above specified search terms also contained studies in which the term “factorial survey” was found in titles included in the reference list, and articles in which the name “Rossi” referred to another author, to take some examples.
to “crime, law and deviance”. Among the other sub-disciplines that were fairly well represented in the review were those of “family and social welfare” and “social stratification”. While most studies were concerned with judgements made by the general population, a fairly large group of articles presented findings from studies of professional judgements. Moreover, the results showed that “normative judgements”, in the form of recommendations, for example, or judgements about the responsibilities of actors, constituted the most frequently studied form of judgement. However, quite a few studies focused on individuals’ “positive beliefs”, such as beliefs about what constitutes a particular definition, for example.

Another category of judgements frequently studied in factorial surveys was individuals’ judgements about their own (intended) actions, feelings and thoughts.

The second part of the review (factorial survey designs) presents information about the various rating tasks and vignette designs that were employed in the articles reviewed. As regards the design of vignette studies, the review revealed a large variation in the number of dimensions and levels chosen for the vignettes. In addition, even though the form of rating task most frequently used by the authors of the reviewed studies was the ordered category scale, many other forms of rating tasks were also represented in the studies. When it comes to the sampling of vignettes from the theoretical vignette universe, the results showed that simple random sampling with replacement has been by far the most commonly used sampling strategy in factorial survey studies.

The third part of the review (factorial survey analyses) describes the modelling strategies used by authors of FSA studies, and the analytical techniques employed to specify these models. The results showed that even though most FSA analysts apparently considered the modelling of the social component of judgements as central to their study, quite a number of them also focused on modelling subgroup variation in judgement thresholds and judgement processes. These models were commonly estimated using regression analysis. It should be noted, however, that only a few of the authors made use of analytical techniques that are particularly suited to hierarchically structured data, such as multilevel regression analysis, for example. An example is provided which illustrates the possibilities afforded by the combination of the factorial survey approach and multilevel modelling.
In conclusion, the review article reveals that the factorial survey approach has over the years been used only infrequently by sociologists. It is concluded that this should not be attributed to limitations associated with the approach itself, but rather to the poor circulation of knowledge about its existence and the opportunities it affords. It is further noted that the combination of the factorial survey approach and multilevel modelling, as well as the potential usefulness of this approach for longitudinal research designs, hold great promise for the future.

**Study II**

With the aim of examining predictors of social workers’ professional (ideal) recommendations of inpatient or outpatient treatment for problem substance users, this study applied multilevel logistic regression to factorial survey data collected from a sample of 205 frontline social workers from 36 social services units in Stockholm County, Sweden. The results showed that all the client characteristics described in the vignettes – with the exception of the client’s sex – have an impact on practitioners’ choices between inpatient and outpatient treatment. Besides the clients’ treatment preferences, the clients’ primary drug turned out to be the most important predictor of treatment setting, with problem users of heroin (injection) most frequently being recommended for inpatient treatment. Moreover, the results showed that inpatient treatment is predicted by deficient social resources – in terms of unstable living arrangements, unemployment and a non-existent social network – and more major problems, such as mental health problems.

Further, it was revealed that practitioners’ professional treatment recommendations in relation to a given client vary both between individual practitioners and between social workers practising in different contexts, and that their choices between inpatient and outpatient treatment are to a certain degree influenced by characteristics relating to the practitioners themselves and to their workplaces. For example, it was found that the social workers’ professional recommendations are determined by treatment availability and policy guidelines, as well as by their own ideological convictions regarding alcohol and narcotics problems. The fact that ideal treatment recommendations vary depending on where the judgement is made raises important questions as regards the “professionalism” of social work decision-making. In effect, it indicates that social workers...
have difficulties disentangling factors that make them want to choose a particular form of treatment for a given client on a strictly professional basis, and factors that – in real-world practice – facilitate this choice or that require them to make this choice. Thus, this study brings to light the necessity of organizational routines that allow and encourage social workers to reflect on and to articulate their judgements and decisions.

**Study III**

With the aim of examining predictors of social workers’ professional (ideal) assessments of eligibility for compulsory care, this study applied multilevel logistic regression to factorial survey data collected from a sample of 205 frontline social workers from 36 social services units in Stockholm County, Sweden. The results showed that overall, the social workers’ assessments of client eligibility for compulsory care correspond well with the legislation. In other words, all the vignette dimensions that represented the criteria outlined in the Care of Abusers (Special Provisions) Act (1988:870) – and which related to the clients’ treatment history, their consenting to treatment, physical and mental health status, social situation and violent behaviour – turned out to be important predictors of eligibility for compulsory care. However, the results also revealed that several factors not specified in the legislation have an effect on these assessments. For example, despite the fact that the compulsory care act does not in itself differentiate between alcohol and various forms of narcotics or solvents, heroin users were singled out as being those most in need of compulsory care. This was interpreted as reflecting a general image of heroin as constituting an extremely dependency-generating and dangerous drug.

In addition, it was revealed that practitioners’ assessments of a given client’s eligibility for compulsory care vary both between individual practitioners and between social workers practising in different contexts, and that their assessments are to a certain degree influenced by characteristics relating to the practitioners themselves and to their workplaces. These determinants include the practitioners’ ideological convictions and the organisational structure of, and experiences of handling compulsory care applications at, the respondents’ workplaces. To the extent that these latter results can be translated into real-world judgements, this means that whether or not a problem substance user is admitted to compulsory care
will *in part* depend on his or her place of residence, and on which social worker he or she is assigned. Were this to be the case, it would clearly be at odds with the requirement for equality before the law at the individual level in the processing of potential compulsory care clients.

**Study IV**

Study IV presents a conceptual and an analytical framework for factorial survey studies of professional judgements in social work. As far as the conceptual framework is concerned, I propose that the factorial survey approach constitutes an advanced instrument for studying practitioners’ use of knowledge in professional judgements. More specifically, I argue that FSA designs may be used for investigating the assumptions that practitioners use as a basis for judgements associated with the dual tasks of “diagnosis” and “treatment”. Due to the quasi-experimental character of this particular method, it is argued that it is possible to identify not only the diagnostic or treatment assumptions explicitly used as a basis for professional judgements, but also those that have been tacitly used by practitioners when making assessments of the fictive clients described in the vignettes.

The analytical framework consists of two modelling strategies. The first of these strategies, which is claimed to be best suited to large-scale studies of professional judgements, proceeds from the possibilities afforded by multilevel regression analysis. This strategy presupposes the application of random slope models to hierarchically structured FSA data with three levels (client, practitioner and context). The paper explains how to use multilevel regression analysis for the modelling of professional agreement (consensus) and professional disagreement (variation) in judgements. In this context, professional agreement consists of the “collective” diagnostic or treatment assumptions potentially detected in the analyses. Professional disagreement in judgements may be modelled in various ways. First, researchers may explore and explain variation in practitioners’ general propensity to make a particular diagnosis or to recommend a particular intervention for a given client. This variation may be located both between individual practitioners and between practitioners working in different contexts. Second, it is possible to investigate whether the diagnostic or treatment assumptions used by practitioners for guiding their judgements vary between individual practitioners, or
between contexts, and whether these assumptions may indeed be “sub-
group-specific” or “context-specific”.

The second modelling strategy is intended for research associated with
professional development at the micro-level. The principal aim of this
strategy is that of modelling whether individual practitioners vary in their
judgements, and if so then in what ways. Thus, a multiple linear single-
level regression analysis is estimated for each of the respondents taking
part in the study. Subsequently, the respondent-specific models are com-
pared on the basis of the estimates produced. Potential variation in the
regression slopes, for example, indicates the presence of “individual-spe-
cific” diagnostic or treatment assumptions. Finally, because this model-
ing strategy is focused on facilitating professional development, I sug-
gest that the researchers in charge provide each respondent with easily
interpreted summations of his or her judgements (including for example a
written account of the assumptions detected in the analyses). Professional
development would most effectively be achieved if these results were
then discussed in groups of respondents.
Concluding remarks

The link between the four studies included in this thesis is found in the factorial survey approach – a method intended for investigating human judgements of social objects. Despite the many advantages associated with this approach, evidence from Study I indicates that it has not been widely used within the discipline of sociology (which may be regarded as its “mother discipline”).\(^5\) In fact, the average publication rate of factorial survey studies in central sociological journals during the period from 1982 to 2006 is only slightly higher than four articles per annum. In addition to the seemingly poor circulation of knowledge about the existence of the factorial survey approach, and about the opportunities it affords, its limited use might be attributed to the fact that it is rather labour-intensive, in the sense that a good deal of effort is required to develop the vignettes. In addition, because it is a prerequisite of the design that the respondents judge various (or differently ordered) sets of vignettes, the questionnaires that are constructed for an FSA study cannot be identical. This also means that the incorporation of vignettes in so-called “multi-purpose” survey instruments is far from straightforward. However, the increased use of computer-assisted telephone (and personal) interviewing for the collection of data may serve to facilitate the conduct of FSA studies. Thus, instead of producing a large number of paper versions of the questionnaire in advance, a computer program may select the dimension levels for the vignettes at the moment of application (cf. Sniderman & Grob, 1996).

Naturally, one of my primary motives for compiling information about the way the factorial survey approach has been employed by sociologists in a review-article was that of facilitating and inspiring future applications of this method to various substantive areas of research. Even though we cannot make any prophesies regarding the future of this method in the study of human judgement in general, there is reason to expect an intensified use in the health care and social work fields. This expectation is based on the recent intensification of interest in the subject of

\(^5\) Peter Henry Rossi (1921-2006) was a sociologist.
professional judgements – an interest that may in part be ascribed to the expansion of evidence-based practice [EBP] within the fields of health care and social work (cf. Trinder & Reynolds, 2000). In addition, the above-cited recently published articles (e.g. Ludwick et al., 2004; Taylor, 2006), which introduce the factorial survey approach to the study of professional judgements may, together with the ideas presented in Study IV, help to guide future applications of the approach in this particular field of research.

If we are to establish some links between the various categories of judgements that may be studied using this approach – categories which have been discussed and further developed in Study I and Study IV – we may conclude that professional judgements associated with the task of diagnosis consist of positive beliefs (beliefs about what constitutes a particular diagnosis), while professional judgements made in association with the task of treatment consist of normative judgements (judgements about what intervention is the most suitable for a given client). In Study IV, and in line with Rosen and his colleagues (1999), I argue that professional judgements about diagnoses call for the use of descriptive knowledge, while those made in connection with treatment require knowledge aimed at control. Naturally, and as already indicated, it is also possible to make use of the factorial survey in order to study practitioners’ use of explanatory knowledge in judgements. For example, Love and her colleagues (1990) investigated health behaviour professionals’ beliefs about what factors contribute to a change in the clients’ health behaviour. In the context of substance misuse treatment, it would be interesting to study social workers’ (positive) beliefs about what factors are part of a positive change in clients’ drinking or drug habits, or their beliefs about what factors may help to sustain a changed life-style on the part of the clients.

As suggested in the last three articles presented in this thesis, factorial survey studies in the field of professional judgements may present results that raise important questions as regards the “professionalism” of practitioners’ judgements. To take one example, results from Study II revealed that social workers who practice at social services agencies where outpatient treatment is readily available and/or where there is an official policy of giving priority to outpatient treatment have a higher general preference for outpatient treatment by comparison with those working at units where neither of these conditions is present. These results indicate that conditions at the workplace may indeed become part and parcel of the
practitioners’ judgements about what interventions are the most suitable for promoting the welfare and best interests of their clients. The fact that the practitioners’ professional judgements are to a certain extent formed by conditions in their local contexts is no doubt grounded in the fact that social work practitioners are not only loyal to their profession (and the values that it represents), but also to their employer (and the rules and guidelines that are reinforced by this employer) (cf. Blau & Scott, 1962). In cases where professional and organizational objectives diverge (as must sometimes be the case), resulting in “competition” between professional and organizational loyalties, tensions may arise which create a stressful working environment for the individual practitioners. One way for practitioners who are experiencing this form of stress to deal with it, is to unconsciously incorporate the organizational objectives into their own “psychology and attitudes” (cf. Simon, 1997, p. 278), and thus ultimately also into their judgements about what is best for their clients. If such organizational influences are invisible to the practitioners themselves, they will not be able to express them if asked about them in interviews. Moreover, they cannot describe them when making notes in client files. However, as is shown in this thesis, the factorial survey approach provides a means of detecting the effect of such influences on professional judgements.

At the same time, results from factorial surveys may strengthen the sense of professionalism in judgement and decision-making. While traditional vignette studies as a rule highlight potential professional disagreement in judgements – results from one such study actually suggested that judgements associated with the choices of interventions for problem substance users are totally “unpredictable” (NBHW, 2004) – the factorial survey also has the potential to detect professional agreement, i.e. knowledge assumptions that are shared by many of the practitioners taking part in the study. Even though these assumptions are not necessarily correct (see Study IV), they may serve as hypotheses that can be tested further in research. This suggestion is in line with Payne (2001), who criticises the concept of a “knowledge base” – which is frequently used in the social work literature – for implying that knowledge is something static, when the knowledge used in real-world professional practice must actually be continually revised and reconstructed.

Further, in the current discussions about knowledge use in social work practice, much emphasis is placed on the sources of knowledge
(cf. above). As mentioned earlier, the knowledge assumptions potentially detectable in FSA designs are always of uncertain origin, in the sense that we do not know the sources of the knowledge used by practitioners when assessing the fictive clients. However, tentative conclusions about the sources of knowledge may be made if the factorial survey approach is used for the comparison of judgements between samples and/or points in time. For example, imagine that a particular FSA design is simultaneously used to survey students (e.g. social work students) who have just entered their studies, students who are just about to finish their studies and practitioners who have been working in the field for a number of years. If the results from such a study were to show that judgements vary between the groups of respondents such that experienced practitioners share diagnostic or treatment assumptions to a greater extent than the two other groups, this would imply that they have gained this knowledge through their experience of practical work with clients. To take another example, if students were to respond to series of fictive clients both before and after an educational module (for example in judgement and decision-making), a comparison of the judgements from the two occasions might serve as a means of evaluating part of the effects of this particular course.

The current and forthcoming promotion of the factorial survey approach for the study of professional judgements in social work will undoubtedly be met with some scepticism. One reason for this is that many researchers believe that quantitative methods – representing the “positivist” line of research – are not very well suited to capturing the complexity involved in professional practice with individual clients. Criticism will undoubtedly be directed at FSA studies based on the belief that the application of this method to professional judgements will inevitably emphasise the technical-rational component of practice at the expense of the practical-moral component (cf. Taylor & White, 2001) – i.e. the “art of practice” (cf. Goldstein, 1992). I would argue however that a prerequisite for the bottom-up construction of knowledge on professional judgement and decision-making is the possibility to abstract and deconstruct the different elements of professional practice. In using the factorial survey approach, you do not study the whole chain of judgements and decisions in the context of a dynamic professional environment. Rather, you study a number of “frozen moments” in this chain (cf. Wallander & Blomqvist, 2005), since you both abstract the judgements from real-life
practice, and deconstruct their determinants into a number of variables. Thus even though the results from a factorial survey study will never give the “whole picture”, and despite the fact that they, by design, constitute “representations” rather than “replicas” of professional judgements (cf. Benbenishty, 1992), they nonetheless constitute solid, empirically based, building blocks that may be used in order to further the understanding of practitioners’ professional judgements.


Börjeson, B. (2003). Från Skås försök… En diskussion om relationen kunskap och social praktik [From the endeavours at Skå… A discussion about the relationship between knowledge and social practice], in N. Varg (Ed.), Perspektiv på kunskapsutveckling inom socialtjänsten [Perspectives on the development of knowledge within the social services] (pp. 76-90). Stockholm: National Board of Health and Welfare.


Skogens, L. (2005). Om personliga faktorers betydelse för socialarbetares agerande vid tecken på alkoholproblem hos klienter [About the importance of individual characteristics for social workers’ actions given signs of problematic drinking in clients]. Nordisk alkohol- och narkotikatidskrift [Nordic Studies on Alcohol and Drugs], 22(5), 317-337.


