

## Empirical research on ethics : the influence of social roles on decisions and on their ethical justification

Witte, Erich H.; Heitkamp, Imke

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Erich H. Witte & Imke Heitkamp

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# **Empirical research on ethics: The influence of social roles on decisions and on their ethical justification**

Erich H. Witte & Imke Heitkamp

## **Abstract**

Two questionnaire studies try to answer the question if different social roles lead to different decisions and justifications concerning ethical problems. In study I participants were asked to decide either on an economic or a medical problem while going into a related social role, in study II role expectations were asked for. The decision had to be justified by weighing the importance of four classical ethical positions: hedonism, intuitionism, utilitarianism, and deontology. The results show that decisions and their justifications are dependent on social roles and partly on the context. The effect which is interpreted as stemming from social standardization is greater for role behavior. The differences between role behavior and expectation indicate a misunderstanding crucial for group decisions.

**Keywords:** social role, social standardization, ethics, justification

## **Introduction**

Ethical questions are demanding answers more urgent than ever. Recently, the Schiavo case agitated people all over the world and split them up into advocates and opponents of euthanasia. Not only medical questions and questions due to ever advancing biotechnological feasibilities (Mitcham, 1990) keep the world busy but also problems of politics and society, environment and business: How can the war on Iraq be ethically justified? How should war prisoners be treated? Should the Kyoto convention on climate change be ratified? Is it right to begin a trade war on textiles with China? It is not surprising that commissions deliberating ethical problems are more and more common and increasing in number. Although they decide, or at least give recommendations, about live and death, peace and war, just and unjust, next to nothing is known about their way of working and factors influencing their decisions. A look back into history shows that groups in general are vulnerable to mistakes. And wrong decisions can have serious consequences (Janis, 1972; Tuchman, 1984).

When forming a commission, members representing special professions, fields of expertise or ideologies are selected. The gathering of people who keep different social roles is a common attempt to try to handle ethical uncertainty and to gain rational argumentation. The question is whether such a procedure is an adequate one or if it rather strengthens social standardization carried over by the social roles commission members keep. What if people do not feel free to decide individually but will orientate themselves on social norms? Do people assume potential norms or do such norms really exist? What would standardizations mean for decisions and their ethical justifications? The general question is: How could decisions be ethically justified at all? Normally, decisions are explained giving intellectual reasons (Janis, 1972). Ethical justifications, however, are relatively rare and so far not in the focus of active research, with one exception: the research on justice (Tyler, Boeckmann, Smith & Huo, 1997).

The above mentioned questions are to be answered with two questionnaire studies that try to determine the influence of social roles on decisions and their justification concerning different ethical problems. Two different perspectives are taken up: an internal and an external one. The first study focuses on role simulations. Participants were asked to go into a defined social role and to act correspondingly. The second study puts the questions which way of acting people expect from keepers of different social roles.

Before describing the survey, theoretical basics to the factors involved into the study are displayed: ethics commissions, social roles, and ethical positions.

### **Ethics commissions**

Ethics committees and commissions are multidisciplinary composed ethical advisory bodies in the form of small groups; they work in a defined institutional context and should meet a special advisory need; they especially reflect the morally problematic part of issues and problems. Ethics commissions can be characterized concerning several factors with different specifications:

- political level or institutional dependence: from panels of individual hospitals up to national commissions (e.g. President's Council on Bioethics, 2001)
- composition of their members: representatives of different sciences, sometimes of political parties
- topics: often problems concerning medical practice or bio-/gene technology
- application: e.g. advice, recommendation, information, control of norms, and
- type of statement: consensus, votes for several voices, or neutral option catalogues.

Ethics commissions have various faces. Albeit the committees' variety and increasing number (McGee, Spanogle, Caplan & Asch, 2001), the knowledge about them tends towards zero. The group processes within, their way of working, and the quality of their results are more or less a "black box" (Witte, 1991).

From a social psychological point of view, the work of ethics commissions is a complex group task (Witte, 2002a; Witte & Heitkamp, 2005). To the basic elements of groups – and therefore of ethics commissions as well – belong group members (Arrow, McGrath & Berdahl, 2000). Their composition can influence many aspects of group life, including group structure, dynamics, and performance (Moreland, Levine & Wingert, 1996).

### **Social roles**

Here, the studies performed focus on another salient and influencing characteristic of commissions' members: the social role. The social role is a well established category of every-day life with stereotyped images like doctor, priest, or housewife (Goffman, 1961) which are dimensions of the social identity (Deaux, Reid, Mizrahi & Ethier, 1995). Tacit ground rules form social identities and make everyday

life possible (Chriss, 1999). While there seems to be a tendency towards a consensus about the contents of roles (Coser, 1991; Turner, 1972), the definitions of “role” diverge. On the one hand, social role is defined as “the *typical* response of individuals in a particular position” (Goffman, 1961, p. 93), a definition which concentrates on behavior. On the other hand, there are definitions which focus on the expectation towards role keepers (Woodland, 1968). Role is the “expectation held by the group for how members in particular positions ought to behave” (Kenrick, Neuberg & Cialdini, 2005, p. 400). Because each definition alone forms a stereotype (Turner & Colomy, 1993), the synthesis of both seems to be adequate: the role is the point of intersection between the behavior orientations of actors, the expectations of others and the functional requirements of the society (Sarbin & Scheibe, 1983).

Close to social roles are social norms. Compare the above mentioned definition of role by Kenrick, Neuberg and Cialdini (2005) with their definition of social norm: “A rule or expectation for appropriate social behavior” (p. 4). Each role seems to be defined through social norms which thus have an impact on the behavior of role keepers.

Normally a social role is identified as an entity (Turner, 1972). In contrast to that, Turner and Colomy (1993) propose a role differentiation. They sketch three principles: functionality, representation, and tenability, which are highly interactive in their effects. Thereby, role conflict resulting from ethical situations is significantly greater than that of any other source (e.g. job, family) (Chonko & Burnett, 1983).

Every differentiating principle can be detected in the context of an ethics commission. Functionality seems to be the main principle for the composition of the committee’s members. Different competencies and dispositions are associated with different professions or offices. In contrast to Turner and Colomy, conflicts of interests are thereby not avoided but wanted. An example is the committee on local water management that comprises representatives of the water works, politicians, and residents of the affected area (McDaniels, Gregory & Fields, 1999).

Another differentiating principle is representation. It is able to cover functionality (Turner and Colomy, 1993). A current example is the decision of the German National Ethics Council on cloning for reproduction or for biomedical research. Fields of expertise or offices of the commission’s members ceased to play a role; they were superseded by three divergent positions which had emerged during discussion. In the end, it only mattered how many members opted for (i.e. represented) which

option (see German National Ethics Council, 2004). As the members of the German National Ethics Council were not able to form a consensus, the importance of the third differentiating principle comes into consideration. This means, if a consensus had been achieved, some of the members would have given up their roles. This obviously too costly alternative must have been against the third principle: tenability.

In sum, social roles can be detected and their influence can be esteemed as to be highly probable. But if and how they work is fully open. The differentiation between functionality and representation of roles (e.g. profession and decision of a committee member) appears to be noteworthy. It has to be shown how far social roles are functional as schemes and models for personal behavior (Athay & Darley, 1982). Because social roles are associated with duties, norms, and expectations (Donahue, Robins, Roberts & John, 1993), the influence of social roles is especially crucial in the area of ethical decisions and their justification: Is everyone able to decide freely and rationally or can roles lead to standardized decisions and judgments which do not mirror the real situation?

Definitions of social role stress role behavior, role expectations, or both. It is not clear to what extent role expectations and role behavior go together. It is likely that there are differences between role behavior and role expectation because of the differences of cognition and conation.

## **Ethical positions**

Ethical research can be compared to a medal with two sides: one side refers to ethics theory, which means to thousands of years of philosophy (Mac Intyre, 1976), the other one refers to empirical psychology. Both sides can be conjoined in one of our research question that is if theoretical ethical positions of practical philosophy can be found empirically. The psychological perspective should be value-free.<sup>1</sup> In contrast to philosophy, psychology is not interested in ascertain the however based superiority of one position. Psychology is only in the given facts of empiricism. The question behind is not how people should justify their actions but rather how they do it in practice and what factors influence their justifications. For example the connection between identity, moral cognition (e.g. justification) and behavior (e.g. decision) is of interest (Aquino & Reed, 2002).

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<sup>1</sup> An exception is Kohlberg (e.g. Colby & Kohlberg, 1987) who put different ethical positions in hierarchical order.



Normative ethical positions which are empirically stated are hedonism, intuitionism, utilitarianism, and deontology, (Witte, 2001, 2002b, 2002c; Witte & Doll, 1995). The meanings of these value attitudes have also been similarly found (Barnett, Bass, Brown & Hebert, 1998; Forsyth, 1980, 1992; Forsyth & Nye, 1990; Forsyth & Pope, 1984). Hedonism goes back to Aristippos and contains that an action has to be performed when it brings pleasure to oneself. This could be intermingled with egoism but it does not have to be. To put it more neutral, the action performed should not be in opposition to the individual human dignity (Witte & Doll, 1995). Intuitionism considers the reason for an action to stem from individual insight or individual feeling regarding it as self-evident. Intuitionism prevents justifications from running to a dead end, to an endless regress (Rawls, 1971; Witte & Doll, 1995). Utilitarianism prescribes to perform that action which brings the greatest happiness for the greatest number (of feeling beings). It is associated with the names of J. Bentham and J. S. Mill. In contrast to utilitarianism, from a deontological point of view the end does not justify the means, but the means themselves underlie the need of justification. According to deontology, justifications should match universal principles such as the categorical imperative (see I. Kant). Empirically, people assign various degrees of importance to all four ethical positions (Witte, 2002b, 2002c). The four ethical positions can be included in a taxonomy, which takes two dimensions into account: content matter and the level of the judgment (table 1).

Table 1. Taxonomy of the four ethical positions (Witte & Doll, 1995)

Content matter	End/Consequence	Mean/Rule
Level of judgment		
Personal	<b>Hedonism</b> (I am concerned with my personal well-being.)	<b>Intuitionism</b> (I am sure that this action is appropriate.)
General	<b>Utilitarianism</b> (In my opinion, one has to consider the consequences of an action for everyone.)	<b>Deontology</b> (In my opinion, general principles serve as guidelines for our actions.)

It is essential that “different ethical judgments do not imply different ethical frameworks and similar ethical judgments do not imply similar ethical frameworks” (Hunt & Vitell, 1986, p. 14). In line with this statement ethical positions have been found empirically in different contexts. The importance of different value attitudes varies with culture (Maeng, 1995), with the quality of the actions that have to be justified (individual, interpersonal, social actions) (Witte & Doll, 1995), with social identity (Gollenia, 1999), and with professional socialization (Hackel, 1995).<sup>2</sup>

The variation with profession is especially important for our study, which puts its stress on different social roles or professions members of (ethics) commissions have, respectively. Gollenia (1999) asked people of three different professional backgrounds, economic, medical, and, juridical, how they justify the germline therapy. She found that economists prefer hedonistic positions, but that physicians and jurists favor utilitarian and deontological positions. Many studies empirically found connections between ethical decisions, actions, and ethical positions in an economic context (e.g. Akaah & Riordan, 1989; Barnett et al., 1998; Tansey, Brown, Hyman & Dawson, 1994). It is proved that economists prefer utilitarianism when it comes down to economic decisions (Fritzsche & Becker, 1984; Premeaux & Mondy, 1993).

It is likely that these results can be transferred to the contexts of (ethics) commissions: members of distinct fields of expertise or professions should come to dissimilar decisions and emphasize varying ethical positions as being important for their decision. On the one hand, this would strengthen the claim for gathering people of various backgrounds because only in this way optimal results could be attained in a commission. On the other hand, a new question arises: If people actually decide and justify according to their social roles, would this mean that the decisions made by (ethics) commissions are not only predictable but also suggestible? Thus, the decision depends on the role keepers represented in the committee and might be manipulated by the organizer.

## **Research question and hypotheses**

The studies try to answer the question, if there is a connection between the social role someone holds and the decision and its justification concerning an ethical

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<sup>2</sup> The quoted literature is written in German. We do not know about comparable literature published in English. If we are mistaken we will be thankful for information.

problem. Thereby it is of special interest whether decisions and their justifications are socially standardized.

Two studies are to shed light on the influence of social roles from two different perspectives which are known from the definitions of social role: behavior and expectation. Study I tries to determine this connection whilst participants had to go into a social role (role behavior). Study II tries to explore this connection whilst participants had to think of the behavior of a typical role holder (role expectation). A second question of investigation refers to the match between actual behavior of someone holding a special social role and the expectations against him.

The following general hypotheses are to be tested:

- H1: Social standardizations influence ethical decisions and their justifications by means of context (medical, economic), thereby weighing the four ethical positions differently.
- H2: Social standardizations influence ethical decisions and their justifications by means of social roles and these standardizations can be made explicit by the different weighing of the four ethical positions.
- H3: There are differences concerning ethical decisions and their justifications between the conditions role behavior and role expectation measured through the importance ratings of the four ethical positions.

Additionally, it is a finding of its own value to know the different forms of justification depending on context, role behavior, and role expectation.

## **Research and analysis design**

The hypotheses were tested in two research contexts because values and decisions are dependent on the situation (for a review of different models see Jones, 1991; Kurtines, 1984; Stead, Worrel & Stead, 1990, for an economic background). Thus, it is possible to compare possible role effects and the emphasis on ethical positions in both contexts. An ethical problem of a medical and one of an economic context were provided, since ethical problems of these two fields are fervidly discussed (for example in the media). The medical problem is: "Should genes be manipulated to prevent hereditary diseases from breaking out?" The economic one is: "Should the production be transferred abroad and thus jobs being cut in order to save the company as a whole?" Each participant had to decide on either the medical or the economic question while going into a related social role (study I) or while

expressing expectations for the behavior of someone holding a special social role (study II). Each participant is linked to one social role, so that both studies follow a 2 x 6-design. The social roles are: member of an ethics commission, someone affected by the decision, social scientist, jurist, politician, and health professional in the medical context. They are member of the board of management, member of the supervisory board, labor union representative, employee of administration, external consultant, and politician in the economic context. These 12 roles comprise a broad spectrum of positions and opinions, but at large, they were chosen at random. Partly, they include contrarian advocacy groups. There are no parallels between the medical and the economic roles.

Each participant had to fill out a questionnaire containing

- a) a general decision on the main question,
- b) 20 questions on the justification of the decision using ethical positions, and
- c) personal data.

The 20-questions-part comprises four to six statements to every ethical position whose importance had to be marked with a cross on a five-point-scale (from 1 = not important to 5 = very important). Examples of items are “I am concerned for my personal well-being.” for hedonism, “I am sure that this is the right behavior.” for intuitionism, “In my opinion, one has to consider the consequences for everyone.” for utilitarianism, and “In my opinion, general values are decisive for behavior.” for deontology.

There is empirical evidence of the quality of the questionnaire which has been tested repeatedly (Gollenia, 1999; Hackel, 1995; Maeng, 1995; Witte & Doll, 1995). Our scope of interest comprised three different levels of analysis. Each level and research question is associated with particular methods of analysis (figure 1).

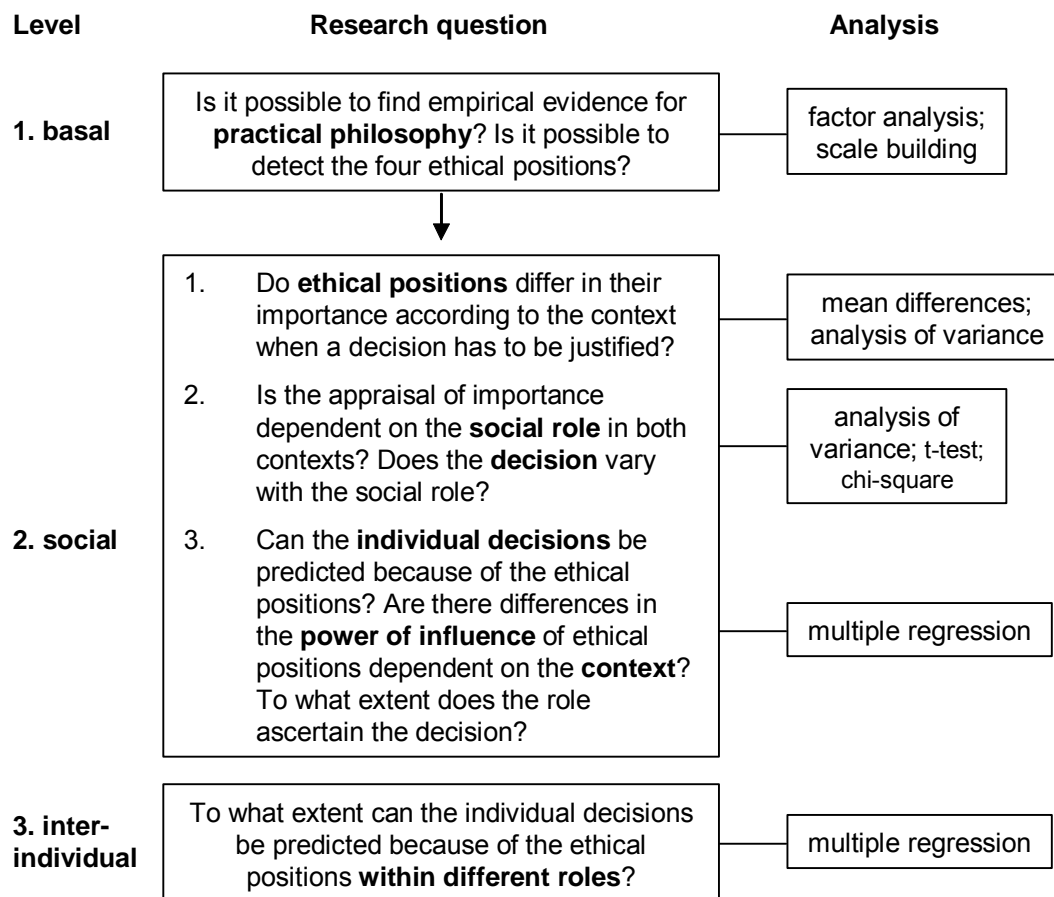


Figure 1. The different levels and questions of research and the particular methods of analysis

## Sample

### Study I

682 subjects took part: 383 females and 288 males. 11 persons did not mention their gender. On the average the age was 27.4 years. The youngest subject was 17 of age, the oldest one was 81. 21.7% of the subjects mentioned a university grade as their highest educational achievement. 66.7% mentioned a university-entrance diploma. It is not possible to determine the proportion of students. The subjects were assigned randomly to the roles.

### Study II

551 subjects took part: 275 females and 256 males. 20 persons did not mention their gender. On the average the age was 30.5 years. The youngest subject was 15 of age, the oldest one was 70. 24.8% of the subjects mentioned a university grade as their highest educational achievement. 54.2% mentioned a university-entrance diploma. 49.1% of the participants were students. 74 participants filled out an online-

questionnaire, which was exactly like the paper-and-pencil version. The subjects were assigned randomly to the role expectations.

## **Results**

Because study I and II were similar apart from their perspectives and to be able to compare their results directly, their findings are described one straight after the other.

### **Results concerning ethical positions**

In study I, a factor analysis of the 20 items could reduce the four ethical positions. 47.5% of the variance could be explained. Hedonism cleared up 14.0% of the variance (eigenvalue = 3.24), intuitionism 10.5% (eigenvalue = 1.38), utilitarianism 11.0% (eigenvalue = 1.48), and deontology cleared up 11.9% (eigenvalue = 2.92) after varimax rotation.

In study II, a factor analysis of the 20 items could reduce the four ethical positions, too. Totally, 60.3% of the variance could be explained. Hedonism cleared up 15.4% of the variance (eigenvalue = 4.98), intuitionism 10.2% (eigenvalue = 3.28), utilitarianism 12.8% (eigenvalue = 1.60), and deontology cleared up 13.9% (eigenvalue = 1.17) after varimax rotation.

In study I, final scale reliabilities (Cronbach's alphas) for hedonism, intuitionism, utilitarianism, and deontology were .63, .60, .61, and .65, respectively. To reach an alpha of .60, the item "One cannot justify every decision." had to be eliminated of the intuitionism scale.

In study II, final scale reliabilities (Cronbach's alphas) for hedonism, intuitionism, utilitarianism, and deontology were .79, .60, .75, and .73, respectively.

There is empirical evidence of the four ethical positions derived from practical philosophy. The results suggest that the subjects accounted on all four ethical positions in both studies. These results go in line with the findings of other studies and proof to be stable.

### **Results concerning ethical positions and the research context**

One has tested whether there are differences in the weighing of the ethical positions between the medical and the economic context. To proof the mean differences analyses of variance were used. First, the mean differences of ethical

positions for each context and within each scale were examined. We used a repeated-measures analysis of variance (ANOVA) with context as between-subject factors and the four ethical scales (hedonism, intuitionism, utilitarianism, and deontology) as in-subject factors. The dependent variable is the weighing of importance of the ethical positions related to the decision made. The results of the repeated-measures ANOVA in study I indicated significant effects for the ethics scales ( $F = 318.03, p < .00$ ) (table 3). About 32% of the variance could be explained by the ethics scales. The interaction between ethical positions and context could be neglected because it explained less than 1% of the variance ( $F = 2.63, p = < .05$ ). The results suggest that despite different contexts comparable patterns of justifications have been applied. In our culture there is a clear differentiation which ethical positions are important for justification, also independent from the context and the roles. (Which ethical positions are more or less important see below, table 2.)

The results of the repeated-measures ANOVA in study II indicated significant effects for the ethics scales ( $F = 72.34, p < .00$ ) (table 3). About 12% of the variance could be explained by the ethics scales. The interaction between ethical positions and context explained about 8% of the variance ( $F = 44.52, p = < .00$ ). The results suggest that somehow similar patterns of justifications have been applied which are in parts independent of the context. But the influence of the context on this pattern could not be neglected. The role expectation is less standardized than the role behavior.

Secondly, we examined separately for each context to what extent variance could be explained by roles. We used a repeated-measures ANOVA with roles as between-subject factors and the four ethical scales as in-subject factors. The results of the repeated-measures ANOVA in the medical context in study I indicated significant effects for the ethics scales ( $F = 181.57, p < .00$ ) (table 5). 37% of the variance could be explained by the ethics scales. The interaction between ethical positions and roles could be neglected because it explained less than 1% of the variance ( $F = 1.78, p = < .05$ ). The results suggest that despite different roles comparable patterns of justifications have been applied. This, however, does not mean that the decisions favored are similar (see below).

Table 2. Means and standard deviations (study I + II)

	Study I							
	Hed		Int		Uti		Deo	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Medical context</b>								
member of ethics commission	3.00	0.74	3.36	0.85	4.05	0.57	3.44	0.74
member of ethics commission affected by the decision	2.98	0.61	3.12	0.72	3.96	0.56	3.27	0.71
health professional	2.82	0.71	3.18	0.83	4.01	0.50	3.42	0.86
social scientist	2.90	0.60	2.88	0.82	4.04	0.68	3.42	0.76
jurist	2.90	0.82	3.01	0.81	4.01	0.62	3.63	0.80
politician	2.82	0.66	2.89	0.72	4.12	0.58	3.47	0.93
medical context total	2.89	0.69	3.07	0.79	4.03	0.59	3.44	0.80
<b>Economic context</b>								
external consultant	3.11	0.81	3.30	0.87	3.85	0.70	3.50	0.83
member of the supervisory board	2.93	0.82	3.07	0.81	3.83	0.67	3.40	0.96
member of the board of management	2.72	0.74	3.07	0.90	3.96	0.48	3.40	0.70
labor union representative	2.85	0.69	3.14	0.93	4.13	0.61	3.47	0.75
employee of administration	3.47	0.66	3.24	0.71	3.96	0.62	3.60	0.83
politician	2.90	0.74	3.28	0.84	3.96	0.60	3.49	0.72
economic context total	3.00	0.74	3.18	0.84	3.95	0.61	3.48	0.80
	Study II							
	Hed		Int		Uti		Deo	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Medical context</b>								
member of ethics commission	2.63	0.80	2.96	0.77	3.91	0.72	3.57	0.73
member of ethics commission affected by the decision	3.16	0.73	3.28	0.91	3.56	0.67	3.26	0.73
health professional	2.69	0.76	3.02	0.78	3.96	0.94	3.17	0.87
social scientist	2.62	0.89	2.92	0.81	4.01	0.52	3.91	0.61
jurist	2.49	0.89	2.78	0.66	3.47	0.88	3.49	0.91
politician	3.09	0.76	2.91	0.61	3.76	0.73	3.63	0.81
medical context total	2.76	0.83	2.97	0.76	3.80	0.78	3.51	0.81
<b>Economic context</b>								
external consultant	2.82	0.98	3.10	0.76	3.54	0.81	2.85	0.81
member of the supervisory board	3.27	0.98	3.24	0.69	3.38	0.89	2.73	0.88
member of the board of management	3.40	0.81	3.34	0.71	3.26	0.78	2.92	0.79
labor union representative	3.01	0.76	3.13	0.74	3.96	0.68	3.70	0.80
employee of administration	3.66	0.49	3.16	0.66	3.32	0.83	3.23	0.91
politician	3.45	0.80	3.05	0.75	3.46	0.79	3.17	0.76
economic context total	3.27	0.86	3.18	0.73	3.47	0.82	3.09	0.87

Note. Data refer to a five-point-scale with 1 = not important and 5 = very important; hed = hedonism, int = intuitionism, uti = utilitarianism, deo = deontology



Table 3. Repeated-measures ANOVA, innersubject-design: ethics (study I + II)

	Source		<i>df</i>	<i>MS</i>	<i>F</i>	<i>sign.</i>	$\eta^2$
Study I	ETHICS	Sphericity assumption	3	144.25	318.03	.00	0.32
	ETHICS * CONTEXT	Sphericity assumption	3	1.19	2.63	.05	0.00
Study II	ETHICS	Sphericity assumption	3	43.19	72.34	.00	0.12
	ETHICS * CONTEXT	Sphericity assumption	3	26.58	44.52	.00	0.08

To detect differences in the justifications we used post hoc t-tests between the roles for hedonism, intuitionism, utilitarianism, and deontology. Table 4 shows that in study I most of the differences between the roles dated from intuitionism, followed by deontology (only significant results are listed). These ethical positions were significant for a differentiation between the justifications of diverse role keepers. Obviously, not the end but the means differ between the roles.

Table 4. Significant results of post hoc t-tests between the roles (medical context, study I)

	Medical context	<i>M</i>	<i>SD</i>	<i>T</i>	<i>sign.</i>
Intuitionism	member of ethics commission	3.36	0.85	-3.05	.00
	politician	2.89	0.72		
	member of ethics commission	3.36	0.85	2.12	.04
	jurist	3.01	0.81		
	member of ethics commission	3.36	0.85	2.85	.01
	social scientist	2.88	0.82		
Deontology	member of ethics commission affected by decision	3.27	0.71	-2.42	.02
	jurist	3.63	0.80		

Note. Data refer to a five-point-scale with 1 = not important and 5 = very important

The results of the repeated-measures ANOVA in the medical context in study II indicated significant effects for the ethics scales ( $F = 95.60$ ,  $p < .00$ ) (table 5). 28% of the variance could be explained by the ethics scales. The interaction between ethical positions and roles explained about 8% of the variance ( $F = 15.37$ ,  $p = < .00$ ). The results suggest that somehow similar patterns of justifications have been applied

which are in parts independent of the role. But the influence of the roles on this pattern could not be neglected.

Table 5. Repeated-measures ANOVA (medical context), innersubject-design: ethics (study I + II)

	Source		<i>df</i>	<i>MS</i>	<i>F</i>	<i>sign.</i>	$\eta^2$
Study I	ETHICS	sphericity assumption	3	78.01	181.57	.00	0.37
	ETHICS * ROLES	sphericity assumption	15	0.76	1.78	.03	0.03
Study II	ETHICS	sphericity assumption	3	51.59	95.60	.00	0.28
	ETHICS * ROLES	sphericity assumption	15	2.21	4.09	.00	0.08

Table 6 shows that in study II most of the differences between the roles dated from hedonism, followed by utilitarianism, deontology, and intuitionism (only significant results of the t-tests performed are listed).

Table 8 shows the results of the repeated-measures ANOVA in the economic context in study I. They indicated significant effects for the ethics scales ( $F = 135.24$ ,  $p < .00$ ). 27% of the variance could be explained by the ethics scales. The interaction between ethical positions and roles could be neglected because it explained less than 1% of the variance ( $F = 2.23$ ,  $p = < .00$ ). The results resemble the ones in the medical context, but less variance could be explained by differences of ethical justifications.

To detect differences in the justifications, post hoc t-tests were used. Table 7 shows that most of the differences between the roles dated from hedonism, followed by utilitarianism (only significant results are listed). This finding suggests that this ethical position is significant for a differentiation between the justifications of diverse role keepers in the economic context, too. Now the differences are more on the ends than on the means, as above.

Table 8 shows the results of the repeated-measures ANOVA in the economic context in study II. They indicated significant effects for the ethics scales ( $F = 135.24$ ,  $p < .00$ ). 27% of the variance could be explained by the ethics scales. The interaction between ethical positions and roles explained about 3% of the variance ( $F = 2.23$ ,  $p = < .00$ ).

Table 6. Significant results of post hoc t-tests between the roles (medical context, study II)

	<b>Medical context</b>	<i>M</i>	<i>SD</i>	<i>T</i>	<i>sign.</i>
Hedonism	member of ethics commission	2.63	0.80		
	member of ethics commission affected by the decision	3.16	0.73	-3.05	.00
	member of ethics commission	2.63	0.80		
	politician	3.09	0.76	-2.89	.01
	member of ethics commission affected by the decision	3.16	0.73	2.73	.01
	health professional	2.69	0.76		
	member of ethics commission affected by the decision	3.16	0.73	2.76	.01
	social scientist	2.62	0.89		
	member of ethics commission affected by the decision	3.16	0.73	3.39	.00
	jurist	2.49	0.89		
	health professional	2.69	0.76	-2.51	.01
	politician	3.09	0.76		
	social scientist	2.62	0.89	-2.62	.01
	politician	3.09	0.76		
	jurist	2.49	0.89		
	politician	3.09	0.76	-3.29	.00
Intuitionism	member of ethics commission affected by the decision	3.28	0.91	2.59	.01
	jurist	2.78	0.66		
Utilitarianism	member of ethics commission	3.91	0.72		
	member of ethics commission affected by the decision	3.56	0.67	2.23	.03
	member of ethics commission	3.91	0.72		
	jurist	3.47	0.88	2.61	.01
	member of ethics commission affected by the decision	3.56	0.67	-3.68	.00
	social scientist	4.01	0.52		
	health professional	3.96	0.94		
	jurist	3.47	0.88	2.44	.02
	social scientist	4.01	0.52		
	jurist	3.47	0.88	3.22	.00
Deontology	member of ethics commission	3.57	0.73		
	health professional	3.17	0.87	2.51	.01
	member of ethics commission.	3.57	0.73		
	social scientist	3.91	0.61	-2.37	.02
	member of ethics commission affected by the decision	3.26	0.73	-4.04	.00
	social scientist	3.91	0.61		
	member of ethics commission affected by the decision	3.26	0.73	-2.01	.05
	politician	3.63	0.81		
	health professional	3.17	0.87	-4.44	.00
	social scientist	3.91	0.61		
	health professional	3.17	0.87	-2.55	.01

politician	3.63	0.81	2.34	.02
social scientist	3.91	0.61		
jurist	3.49	0.91		

Note. Data refer to a five-point-scale with 1 = not important and 5 = very important

Table 7. Significant results of post hoc t-tests between the roles (economic context, study I)

<b>Economic context</b>		<i>M</i>	<i>SD.</i>	<i>T</i>	<i>sign.</i>
Hedonism	employee of administration	3.47	0.66	-4.45	.00
	politician	2.90	0.74		
	employee of administration	3.47	0.66	-2.60	.01
	external consultant	3.11	0.81		
	employee of administration	3.47	0.66	-4.95	.00
	labor union representative	2.85	0.69		
	employee of administration	3.47	0.66	-3.70	.00
	member of the supervisory board	2.93	0.82		
	employee of administration	3.47	0.66	5.36	.00
	member of the board of management	2.72	0.74		
	labor union representative	2.85	0.69	2.05	.04
	external consultant	3.11	0.81		
Utilitarianism	labor union representative	4.13	0.61	2.61	.01
	member of the supervisory board	3.83	0.67		
	external consultant	3.85	0.70	-2.51	.01
	labor union representative	4.13	0.61		

Note. Data refer to a five-point-scale with 1 = not important and 5 = very important

Table 8. Repeated-measures ANOVA (economic context), innersubject-design: ethics (study I + II)

Source			<i>df</i>	<i>MS</i>	<i>F</i>	<i>sign.</i>	$\eta^2$
Study I	ETHICS	sphericity assumption	3	8.09	14.31	.00	0.05
	ETHICS * ROLES	sphericity assumption	15	3.64	6.43	.00	0.10
Study II	ETHICS	sphericity assumption	3	62.44	135.24	.00	0.27
	ETHICS * ROLES	sphericity assumption	15	1.03	2.23	.00	0.03

The results resemble the ones in the medical context, but less variance could be explained by differences of ethical justifications what especially refers to the condition of role expectations (study II). On that condition the influence of roles seems to be greater in the economic than in the medical context.

Table 9 shows that most of the differences between the roles dated from hedonism, followed by deontology, utilitarianism, and intuitionism (only significant results of the t-tests performed are listed).

The weighing of different ethical positions for the justification of a decision varied with the context (in parts in study I). The findings suggest that ethical positions were significant for a differentiation between the justifications of diverse role keepers whereas the effect was greater in the medical than in the economic context.

Subject of the next section was if there are differences in the weighing of the ethical positions between the conditions “role behavior” (study I) and “role expectation” (study II) within each research context. In the medical context in study I, more variance of the factor “ethical position” could be explained than in study II (37% vs. 28%), but in study II, the interaction between ethical position and context accounted for an at least median amount of the variance (8%). The comparison between the conditions “role behavior” (study I) and “role expectations” leads to the conclusion that for role behavior the independence of the context of the justifications applied is greater than for role expectations. This also means that patterns of ethical positions for the justification of one’s own behavior seem to be more rigid than the expected pattern which to a greater part allows options.

In study I and II the justifications of diverse role keepers could be differentiated by different ethical positions. The effect was greater for the condition of role expectations (study II): more social roles and more ethical positions contributed to the overall influence of roles than for the condition of role behavior (study I).

In the economic context in study I, more variance of the factor “ethical position” could be explained than in study II (27% vs. 5%), but in study II, the interaction between ethical position and context accounted for an at least median amount of the variance (8%). The comparison between the conditions “role behavior” (study I) and “role expectations” leads to the conclusion that for role behavior the independence of the social role is greater than for role expectations. This also means that patterns of ethical positions for the justification of one’s own behavior seem to be more rigid than the expected pattern which to a greater part takes the scope of roles into account.

Table 9. Significant results of post hoc t-tests between the roles (economic context, study II)

	<b>Economic context</b>	<i>M</i>	<i>SD</i>	<i>T</i>	<i>sign.</i>
Hedonism	external consultant	2.82	0.98	-2.12	.04
	member of the supervisory board	3.27	0.98		
	external consultant	2.82	0.98	-3.65	.00
	member of the board of management	3.40	0.81		
	external consultant	2.82	0.98	-5.53	.00
	employee of administration	3.66	0.49		
	external consultant	2.82	0.98	-3.43	.00
	politician	3.45	0.80		
	member of the supervisory board	3.27	0.98	-2.40	.02
	employee of administration	3.66	0.49		
	member of the board of management	3.40	0.81	2.62	.01
	labor union representative	3.01	0.76		
	member of the board of management	3.40	0.81	-2.20	.03
	employee of administration	3.66	0.49		
	labor union representative	3.01	0.76	-4.89	.00
	employee of administration	3.66	0.49		
	labor union representative	3.01	0.76	-2.66	.01
	politician	3.45	0.79		
Utilitarianism	external consultant	3.54	0.81	-2.77	.01
	labor union representative	3.96	0.68		
	member of the supervisory board	3.38	0.89	-3.24	.00
	labor union representative	3.95	0.68		
	member of the board of management	3.26	0.78	-5.00	.00
	labor union representative	3.96	0.68		
	labor union representative	3.95	0.68	4.67	.00
	employee of administration	3.32	0.83		
	labor union representative	3.96	0.68	3.19	.00
	politician	3.46	0.79		
Deontology.	external consultant	2.85	0.81	-5.24	.00
	labor union representative	3.70	0.80		
	external consultant	2.85	0.81	-2.21	.03
	employee of administration	3.23	0.91		
	member of the supervisory board	2.73	0.88	-5.22	.00
	labor union representative	3.70	0.80		
	member of the supervisory board	2.73	0.88	-2.53	.01
	employee of administration	3.23	0.91		
	member of supervisory board	2.73	0.88	-2.38	.02
	politician	3.17	0.76		
	member of the board of management	2.92	0.79	-5.24	.00
	labor union representative	3.70	0.80		
	member of the board of management	2.92	0.79	-2.00	.05

	employee of administration	3.23	0.91		
	labor union representative	3.70	0.80	2.65	.01
	employee of administration	3.23	0.91		
	labor union representative	3.70	0.80	3.24	.00
	politician	3.17	0.76		
Intuitionism	member of the board of management	3.34	0.71	2.15	.03
	politician	3.05	0.75		

Note. Data refer to a five-point-scale with 1 = not important and 5 = very important

The interaction of ethical positions and social roles was greater on the condition of role behavior (study I) than on role expectations (study II) (27% vs. 5% of variance explained). In study I, the interaction could be stated as a median effect (10% of variance explained), in study II as a minor effect (3% of variance explained).

Taken together there are differences in the weighing of the ethical positions between the conditions “role behavior” (study I) and “role expectation” (study II) within each research context.

### Results concerning the connection of decision, justification, and role

Question of the next step was if there is a connection between decision, justification, and role within a context. So we used multiple correlations with decision as dependent variable and the four ethics scales and the roles as independent variables. We wanted to determine to what extent the individual decisions within a context could be predicted by the individual importance weights of the ethical positions. Significant multiple correlations indicate individual freedom to choose and justify the decision between roles and in roles. If instead social norms dictate a decision the variance will be small and thus lead to an insignificant correlation.

Table 10 shows the results of a multiple correlation for the medical and the economic context, respectively, in study I. Hedonism and deontology could explain the individual decisions in the medical context, utilitarianism and deontology could explain the individual decisions in the economic context. These ethical positions could contribute significantly to the prediction of the individual decision. In the medical context the individual decision depends on the amount of weighing the individual ends and the common means. The other two predictors are socially standardized without explanation of the individual choices. In the economic context only general means and ends could predict the individual choices. In contrast to that, the role did not contribute independently to the prediction in both contexts. The

interpretation is interindividually standardized, as expected from the theoretical position and the definition of a role. Evidently, only the non-individual part of the role interpretation was important as can be gathered from the interaction of role and ethics. The effect for the medical context ( $\varepsilon^2 = 0.11$ ) as well as the effect for the economic context ( $\varepsilon^2 = 0.15$ ) can be interpreted as median effects, whereas Cohen (1977) determines a median effect as  $\varepsilon^2 = 0.15$ .

Table 10 shows the results of a multiple correlation for the medical and the economic context, respectively, in study II. Intuitionism, utilitarianism, and deontology could explain the individual decisions in the medical context, utilitarianism and deontology could explain the individual decisions in the economic context. These ethical positions could contribute significantly to the prediction of the decision. The common means and ends are weighted from an individual point of view in both contexts. The individual interpretation of the role did also contribute independently to the prediction in both contexts. Evidently, the individual part of the role interpretation was important in the part of role behavior expectation. The effect for the medical context ( $\varepsilon^2 = 0.11$  and  $0.24$ ) as well as the effect for the economic context ( $\varepsilon^2 = 0.16$  and  $0.59$ ) can be interpreted as medium effects with  $\varepsilon^2 = 0.15$  and  $\varepsilon^2 = 0.35$  as large reference values.

Table 10. Multiple correlations: Relationships between context, role, and ethical position (study I + II)

		<i>N</i>	<i>R</i>	<i>sign.</i>	<i>R</i> <sup>2</sup>	sign. contribution to prognosis				
						Hed	Int	Uti	Deo	Role
Study I	Medical context	314	0.32	.00	0.10	.00	.18	.09	.00	.17
	Economic context	368	0.37	.00	0.13	.84	.00	.00	.00	.57
Study II	Medical context	251	0.44	.00	0.19	.37	.01	.00	.03	.00
	Economic context	300	0.61	.00	0.37	.73	.00	.00	.35	.00

Note. hed = hedonism, int = intuitionism, uti = utilitarianism, deo = deontology

However, ethical decisions and ethical positions were connected significantly in both studies. By the means of the pattern of justification the decision could be predicted in both contexts.

In study I, the individual interpretation of the social role did not contribute to the prediction of the decision. The subjects are able to form a consistent interpretation of the role behavior in both contexts. This was possible for the standardized part of the role, which means that the behavior was prescribed by social norms that are connected with a social role. In study II, the social role contributed to the prediction of



the decision. Standardization could not be stated. The individual interpretation of the social role was responsible for its influence on the decision.

It was tested whether there are differences in the connections between decision, justification, and role between the conditions “role behavior” (study I) and “role expectation” (study II) within each research context. The above mentioned differences between the findings of study I and II lead to acceptance.

### **Results concerning the connection between decision and justification**

It was to be tested if there is a connection between decision and justification. It was proofed on an interindividual level whether the decisions could be predicted by the means of the justifications within the roles. For both contexts separately multiple correlations with the decision as dependent and the four ethics scales as independent variables were used. Study I: Table 11 shows that intuitionism which had been able to differentiate between roles on the basis of mean differences could neither contribute significantly to the prediction of the decision in the medical context, nor when considering all roles together. That leads to the conclusion that individually different interpretations of a role did not contribute to the prediction of the decision. This applied to utilitarianism, too. Only hedonism and deontology were able to predict the decision of politicians ( $\varepsilon^2 = 0.22$ ) and members of an ethics commission who are affected by the decision ( $\varepsilon^2 = 0.43$ ). Both roles had a negative beta-weight for hedonism (which means affirmation in this case) and a positive one for deontology (which means denial). This finding suggests that people who act as politicians or as members affected by the decision and interpret their role individually, would rather accept gene manipulation if they preferred hedonic positions and refused deontological positions. These roles tolerated individual decisions in contrast to the other roles. Their decisions and justifications were standardized to a much greater extent. Further predictions were not possible.

Study II, medical context: Table 11 shows that intuitionism which had been able to differentiate between roles on the basis of mean differences could neither contribute significantly to the prediction of the decision (exception: jurist), nor when considering all roles together. That leads to the conclusion that individually different interpretations of a role did not contribute to the prediction of the decision. This applied to hedonism, too. Just utilitarianism and deontology were able to predict the decisions when all roles were taken together. In detail, utilitarianism was able to

predict the decisions of social scientists and jurists. Deontology was able to predict the decisions of ethics commission members who are affected by its decision and jurists. To predict decisions within single roles deontology seemed to be most suitable. The decisions of members of ethics commissions, members affected by the decision, and jurists could be predicted. The three roles had a positive beta-coefficient for deontology which means in this case that they would rather reject gene manipulation if they preferred deontological positions. For jurists it is the same with intuitionism. Social scientists had a negative beta-coefficient for utilitarianism. They would rather accept gene manipulation the more they stress the importance of utilitarian arguments. The four roles mentioned possess individual scopes of decision. The expected decisions and ratings were not as much determined as they were for the other roles. For the residual roles reliable predictions were not possible.

Table 11. Multiple correlations: Relationships between roles and ethical positions (medical context, study I + II)

<b>Medical context</b>		<i>N</i>	<i>R</i>	<i>sign.</i>	<i>R</i> <sup>2</sup>	sign. contribution to prognosis			
						Hed	Int	Uti	Deo
Study I	all roles	314	0.31	.00	0.10	.00	.15	.10	.00
	politician	58	0.42	.03	0.18	.02	.93	.96	.01
	member of ethics commission	50	0.15	.91	0.02	.77	.60	.51	.82
	health professional	52	0.41	.07	0.16	.52	.09	.13	.08
	member of ethics commission affected by the decision	50	0.55	.00	0.30	.01	.74	.78	.00
	jurist	54	0.38	.10	0.14	.11	.82	.13	.06
	social scientist	50	0.37	.15	0.14	.42	.05	.75	.44
Study II	all roles	251	0.41	.00	0.17	.55	.07	.00	.00
	politician	41	0.32	.10	0.40	.77	.45	.55	.11
	member of ethics commission	55	0.39	.07	0.16	.23	.32	.16	.04
	health professional	47	0.26	.55	0.07	.73	.43	.68	.21
	member of ethics commission affected by the decision	31	0.64	.01	0.41	.35	.11	.38	.00
	jurist	38	0.58	.01	0.33	.19	.01	.10	.02
	social scientist	39	0.46	.08	0.21	.30	.57	.02	.05

Note. hed = hedonism, int = intuitionism, uti = utilitarianism, deo = deontology

In study I in the economic context, hedonism which had been able to differentiate between roles on the basis of mean differences could neither contribute significantly to the prediction of the decision, nor when considering all roles together (table 12). The interindividual prediction did not contribute significantly. In contrast, intuitionism,

utilitarianism, and deontology contributed significantly to the prediction of the decision.

Just deontology was able to predict the decision of external consultants ( $\varepsilon^2 = 0.25$ ) and employee of administration ( $\varepsilon^2 = 0.48$ ). Both roles had a positive beta-weight for deontology (which means denial). This finding suggests that people who act as external consultants or as employee of administration and interpret their role individually, would rather deny the production transfer abroad if they preferred deontological positions. These roles tolerated individual decisions in contrast to the other roles. Their decisions and justifications were standardized to a much greater extent.

In study II in the economic context, intuitionism which had not been able to differentiate between roles on the basis of mean differences could contribute significantly to the prediction of the decision when considering all roles together (table 12). Utilitarianism, and deontology contributed significantly to the prediction of the decision, too, which supports the results of the multiple correlation concerning the differentiation between roles. On the level of single roles deontology was able to predict the decisions of members of the board of management and employees of administration. Both roles had a positive beta-weight for deontology (which means denial). This finding suggests that people who act as members of the board of management or as employee of administration and interpret their role individually, would rather deny the production transfer abroad if they preferred deontological positions. These roles tolerated individual decisions in contrast to the other roles whose decisions and justifications were standardized to a much greater extent.

The decision could be predicted by the interindividually different justification of the decision. But the finding is narrowed referring to single roles and ethical positions. The decision could be predicted for two of six roles each in the medical context and in the economic context. Taking together all roles in the medical context, this applied to hedonic and deontological positions and to a deontological position in the economic context. The interindividual differences in these ethical positions influence the decision within specific roles. In study II the scope of the results is limited again: the decision could be predicted for four of six roles in the medical context and two of six roles in the economic context. Taking together all roles, in the medical context this applied to utilitarian and deontological and this applied to intuitionism, utilitarianism, and deontology in the economic context.

The above mentioned findings give evidence that there are differences in the connections between decision and justification between the conditions “role behavior” (study I) and “role expectation” (study II) within a role.

Table 12. Multiple correlations: Relationships between roles and ethical positions (economic context, study I + II)

<b>Economic context</b>		<i>N</i>	<i>R</i>	<i>sign.</i>	<i>R</i> <sup>2</sup>	Sign. contribution to prognosis			
						Hed	Uti	Deo	Int
Study I	all roles	368	0.36	.00	0.13	.86	.00	.00	.00
	external consultant	70	0.45	.01	0.20	.91	.23	.08	.01
	member of the supervisory board	54	0.48	.01	0.23	.17	.04	.13	.10
	member of the board of management	50	0.35	.21	0.12	.75	.75	.25	.07
	labor union representative	68	0.16	.80	0.03	.75	.36	.82	.43
	employee of administration	50	0.57	.00	0.32	.33	.17	.59	.00
	politician	76	0.29	.18	0.08	.15	.80	.45	.16
Study II	all roles	300	0.50	.00	0.25	.08	.02	.00	.04
	politician	44	0.32	.37	0.10	.63	.22	.51	.85
	external consultant	53	0.43	.04	0.18	.10	.51	.07	.91
	labor union representative	47	0.38	.15	0.15	.46	.14	.47	.70
	member of the supervisory board	36	0.28	.02	0.08	.93	.90	.29	.78
	employee of administration	47	0.56	.00	0.36	.70	.19	.03	.57
	member of the board of management	73	0.47	.00	0.22	.68	.07	.02	.73

Note. hed = hedonism, int = intuitionism, uti = utilitarianism, deo = deontology

## Results concerning the decisions made

One has tested whether the frequency distribution of the decision made is dependent on the role. Table 13 shows the frequency distributions as to the decision in the medical context in study I. The decision for or against gene manipulation was at a ratio of about 2.5:1 at large. Most people voted for the manipulation of genes to prevent heredity diseases from breaking out. A chi-square-test was used to determine whether there is a connection between decision and role but it did not become significant ( $Chi^2 = 1.31$ ;  $p > .05$ ). There must be a social standardization of decisions beyond the moderation of roles.

Table 13 shows the frequency distributions as to the decision in the medical context in study II. The decision for or against gene manipulation was at a ratio of about 1:1 at large. We used a chi-square-test to determine whether there is a

connection between decision and role. It became significant ( $Chi^2 = 20.19$ ;  $p < .00$ ). That means that the decision is dependent on the role expectation.

Table 13. Frequency distribution: decisions in the medical context (study I + II)

		Gene manipulation				
		agreement		disagreement		total
		<i>N</i>	%	<i>N</i>	%	<i>N</i>
Study I	member of ethics commission	38	76.0	12	24.0	50
	member of ethics commission affected by the decision	37	74.0	13	26.0	50
	health professional	34	65.4	18	34.6	52
	social scientist	38	76.0	12	24.0	50
	jurist	39	72.2	15	27.8	54
	politician	36	62.1	22	37.9	58
	total	222	70.7	92	29.3	314
	Study II	member of ethics commission	31	50.0	21	40.0
member of ethics commission affected by the decision		26	83.9	5	16.1	31
health professional		40	85.1	7	14.9	47
social scienist		13	33.3	26	66.7	39
jurist		16	44.4	20	55.6	36
politician		13	34.2	25	65.8	38
total		139	57.2	104	42.8	243

In study I, the economic context provided similar findings as to the ratio of frequencies. Table 14 shows the frequency distributions. The decision against job transfer was at a ratio of about 3:1 at large. Three-fourths of the people voted against the production transfer abroad. The labor union representative is an exception: almost all of them deny a production transfer abroad (94.1%). This time the chi-square-test we used to determine whether there is a connection between decision and role became significant ( $Chi^2 = 12.89$ ;  $p < .05$ ).

In study II, the economic context provided similar results as under the medical context for role expectation, an equal probability distribution. Table 14 shows the frequency distributions. The decision for or against job transfer was at a ratio of about 1:1 at large. The labor union representative is an exception: almost all of them deny a production transfer abroad (95.7%). The chi-square-test we used to determine whether there is a connection between decision and role became significant ( $Chi^2 = 54.10$ ;  $p < .00$ ). That means that the decision is dependent on the role in the economic context.

Table 14. Frequency distribution: decisions in the economic context (study I + II)

		Production transfer				
		Agreement		disagreement		total
		<i>N</i>	%	<i>N</i>	%	<i>N</i>
Study I	external consultant	23	33.9	47	67.1	70
	member of the supervisory board	16	29.6	38	70.4	54
	member of the board of management	15	30.0	35	70.0	50
	labor union representative	4	5.9	64	94.1	68
	employee of administration	13	26.0	37	74.0	50
	politician	19	25.0	57	75.0	76
	total	90	24.5	278	75.5	368
Study II	external consultant	40	75.5	13	24,5	53
	member of the supervisory board	28	84.8	5	15,2	33
	member of the board of management	57	77.0	17	23.0	74
	labor union representative	2	4.3	44	95.7	46
	employee of administration	22	47.8	24	52.2	46
	politician	5	11.4	38	86.4	43
	total	154	52.2	141	47.8	295

In general, the decision was dependent on the role. Only in study I in the medical context, the frequency distribution was independent of it. This exception suggests that all roles have the same standardization to accept gene therapy (which is outlawed in Germany). Whilst this seems to be the case for role behavior, the expectations against role keepers does not seem to be that strict.

Subject of the next paragraph was whether the frequency distributions of the decisions made is dependent on the role and differs between the conditions “role behavior” (study I) and “role expectation” (study II). To test this, a chi-square-test was calculated. Table 15 shows a comparison of frequencies of denial and acceptance between study I and II. For each context or role a single chi-square-test was calculated. Observed frequencies refer to study II. Anticipated frequencies are calculated on their basis and are the frequencies which would be anticipated if the results of study I had been exactly replicated. This procedure was necessary to adjust the different numbers of subjects and frequencies between study I and II. Data and results have been written in a row in each case to save space. Frequencies differed significantly between study I and II in the medical context ( $\chi^2 = 21.37$ ;  $p < .00$ ) and in the economic context ( $\chi^2 = 122.39$ ;  $p < .00$ ). On the level of roles, only

two comparisons did not become significant (member of the ethics commission who is affected by the decision in the medical context and labor union representative in the economic context). For these roles, similar standardizations seem to be expressed in role expectations and behaviors. For the two contexts in general and the other roles, expectations and behavior differed and suggest misunderstandings in committees if the role is known and a specific decision expected.

Table 15. Comparison of frequencies of denial and acceptance between study I and II

Role	observed frequency				anticipated frequency				chi <sup>2</sup>	sign.
	agreement		disagreement		agreement		disagreement			
	N	%	N	%	N	%	N	%		
member of ethics commission	32	60.4	21	39.6	40.3	76.0	12.7	24.0	7.09	.01
member of ethics commission affected by the decision	25	83.3	5	16.7	22.2	74.0	7.8	26.0	1.36	.24
health professional	40	85.1	7	14.9	30.7	65.4	16.3	34.6	8.07	.01
social scientist	13	33.3	26	66.7	29.6	76.0	9.4	24.0	38.92	.00
jurist	16	44.4	20	55.6	26.0	72.2	10.0	27.8	13.82	.00
politician	13	34.2	25	65.8	23.6	62.1	14.4	37.9	12.56	.00
<b>Medical context total</b>	13	57.2	104	42.8	171.8	70.7	71.2	29.3	21.37	.00
external consultant	40	75.5	13	24.5	17.4	32.9	35.6	67.1	43.51	.00
member of the supervisory board	28	84.8	5	15.2	9.8	29.6	23.2	70.4	48.34	.00
member of the board of management	57	78.1	16	21.9	21.9	30.0	51.1	70.0	80.37	.00
labor union representative	2	4.3	45	95.7	2.8	5.9	44.2	94.1	0.23	.63
employee of administration	22	47.8	24	52.2	12.0	26.0	34.0	74.0	11.39	.00
politician	5	11.6	38	88.4	10.8	25.0	32.3	75.0	4.10	.04
<b>Economic context total</b>	154	52.2	141	47.8	72.3	24.5	222.7	75.5	122.39	.00

Note. Observed frequencies refer to study II; anticipated frequencies are calculated on their basis and are the frequencies which would be anticipated if the results of study I had been exactly replicated.

## Discussion

The first results of both studies refer to the ethical positions questionnaire which has once again proved to be a reliable and efficient instrument for the survey of ethical positions. The scales have a suitable internal consistence and the

fundamental positions of practical philosophy - hedonism, intuitionism, utilitarianism, and deontology - could be confirmed via factor analysis.

Study I and II give evidence for the importance of all four ethical positions when it comes to justifying a decision. The positions could be stated for a medical and an economic context and seem plausible to be detectable on other contexts, too.

As regards content the studies try to answer the question if there is a connection between the social role someone is holding and the decision and its justification concerning an ethical problem. Thereby it was of special interest whether decisions and their justifications are socially standardized. The results of the studies gave the following answers:

- The justifications were in parts independent from the context (medical und economic). Different roles showed similar patterns of justification mostly independent of the context. The ethical differences were greater for role behavior than role expectation. The direction of the decisions was dependent on the context. Each context forwarded socially standardized decisions which were to agree to gene manipulation and to deny production transfer. Social standardizations were more influential for role behavior.
- Different social roles led to different justifications which meant social standardization through roles. The effects were irregular concerning different roles and different ethical positions. More differentiations and thus less standardization could be stated for the economic context in the condition role expectation.
- Social roles influenced the direction of the decisions which could be interpreted as influence of social norms. An exception was role behavior in the medical context: the influence of the context was more powerful and overlaid the one of social roles.
- Differences between role behavior and role expectation could be stated. They headed for the direction of greater influence of social norms in role behavior.

The findings have an important impact on the composition and treatment of groups discussing an ethical problem, especially ethics commissions. In general, it is helpful to include the role when differences in the justifications are considered. This also means that it is possible to guide discussions better if the importance of ethical positions for the justification of a role keeper is known. It may also be promising to lead group members to take a perspective contrary to their own (Rutherford, 2004)



because group discussions can lead to a polarization as well as to stereotypes (Brauer, Judd & Jacqueline, 2001). Especially disagreements increase stereotyping (Kunda & Spencer, 2003) and can thus lead to “rigid fronts” during discussions. Role keepers should be able to express the self and connect with group members (Bettencourt & Sheldon, 2001; Davis, Conklin, Smith & Luce, 1996) without having misguided perceptions about parties to a negotiation or conflict (Ames, 2004). If different justifications can actually be found and ethical positions are variously weighted, respectively, then it must be assured that not only all important positions are represented (Scanlon, 1999; Schönecker, 2005) but equally considered during the ethical discussion. In this way, the influence of the composition of members could be decreased and the quality of the group’s performance and the finding of a consensual result could become easier. Last but not least the equal consideration of different ethical positions meets the demands of our value pluralistic society.

As to the decisions: In the condition “role behavior” (study I), the chosen contexts retain socially determined decisions, independently from the roles. A great majority votes for gene manipulation and against the transferring of jobs. Thereby, the ethical justifications clearly differ in their importance. Individual perspectives and opinions can only accomplish with special roles and problems when deciding on an ethical problem. From a rational point of view the connections between decision, justification, and social role should not be fixed but should be extinguished. This could be done best by a process of discussing an ethical problem based on reason. In the condition “role expectation” the decisions are less standardized. The differences between role behavior and expectation give evidence for a misunderstanding between the two perspectives. People behave in a way they mean to meet the expectations linked to their roles but actually they do not meet them. Again, the uncertainty concerning the “proper behavior” and the “right decision” should be solved by the means of a discussion process which puts a stress on open-mindedness, rationality, and balanced argumentation.

Further research is necessary as to the standardization of role behavior and decisions. To speak with Turner and Colomy (1993) the functional, representational, and tenable part of social roles should be determined in its influence. Not only further evidence for the mechanisms of role standardizations is needed but also the development of group procedures which are able to prevent the influence of standardizations. In addition to questionnaire studies, field studies and experiments

are desirable. Last but not least, further research should take into account different contexts because the fields in which ethical problems are discussed are ever growing. This research is only a very first step into a research about prescriptive attribution (Witte, 2001).

## References

- Akaah, I. P., & Riordan, E. A. (1989). Judgments of marketing professionals about ethical issues in marketing research. *Journal of Marketing Research*, 26, 112-120.
- Ames, D. R. (2004). Strategies for social inference: A similarity contingency model of projection and stereotyping in attribution prevalence estimates. *Journal of Personality and Social Psychology*, 87 (5), 573-585.
- Aquino, K., & Reed, A. I. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83, 1423-1440.
- Arrow, H., McGrath, J. L., & Berdahl, J. L. (2000). Small groups as complex systems. Formation, coordination, development, and adaptation. Thousand Oaks, CA: Sage.
- Athay, M., & Darley, J. (1982). Social roles as interaction competencies. In W. Ickes & E. S. Knowles (Eds.), *Personality, roles, and social behavior*. New York: Springer.
- Barnett, T., Bass, K., Brown, G., & Hebert, F. J. (1998). Ethical ideology and the ethical judgments of marketing ethics. *Journal of Business Ethics*, 17, 715-723.
- Bettencourt, B. A., & Sheldon, K. (2001). Social roles as mechanism for psychological need satisfaction within social groups. *Journal of Personality and Social Psychology*, 81, 1131-1143.
- Brauer, M., Judd, C. M., & Jacqueline, V. (2001). The communication of social stereotypes: The effects of group discussion and information distribution on stereotypic appraisals. *Journal of Personality and Social Psychology*, 81, 463-475.
- Chonko, L. B., & Burnett, J. J. (1983). Measuring the importance of ethical situations as a source of role conflict: A survey of salespeople, salesmanagers, and sales support personnel. *Journal of Personal Selling and Sales Management*, 3, 41-47.
- Chriss, J. J. (1999). Role distance and the negational self. In G. Smith (Ed.), *Goffman and social organization. Studies in sociological legacy* (pp. 64-80). London: Routledge.
- Cohen, J. (1977). *Statistical power analysis for the behavioral sciences*. New York: Academic Press.
- Colby, A., & Kohlberg, L. (1987). *The measurement of moral judgment* (Vol.1). Cambridge: Cambridge University Press.
- Coser, R. L. (1991). *In defense of modernity. Role complexity and individual autonomy*. Stanford, CA: Stanford University Press.

- Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effect of perspective taking on the cognitive representation of persons: A merge of self and other. *Journal of Personality and Social Psychology*, 70, 713-726.
- Deaux, K., Reid, A., Mizrahi, K., & Ethier, K. A. (1995). Parameters of social identity. *Journal of Personality and Social Psychology*, 68, 280-291.
- Donahue, E. M., Robins, R. W., Roberts, B. W., & John, O. P. (1993). The divided self; Concurrent and longitudinal effects of psychological adjustment and social roles on self-concept differentiation. *Journal of Personality and Social Psychology*, 64, 834-846.
- Forsyth, D. R., & Nye, J. L. (1990). Personal moral philosophies and moral choice. *Journal of Research in Personality*, 24, 398-414.
- Forsyth, D. R., & Pope, W. R. (1984). Ethical ideology and judgments of social psychological research: A multidimensional analysis. *Journal of Personality and Social Psychology*, 46, 1365-1375.
- Forsyth, D. R. (1980). A taxonomy of ethical ideologies. *Journal of Personality and Social Psychology*, 39, 175-184.
- Forsyth, D. R. (1992). Judging the morality of business practices: The influence of personal moral philosophies. *Journal of Business Ethics*, 11, 461-470.
- Fritzsche, D. J., & Becker, H. (1984). Ethical behavior of marketing managers. *Journal of Business Ethics*, 2, 291-299.
- German National Ethics Council (2004). Cloning for reproductive purposes and cloning for the purposes of biomedical research. Opinion. Retrieved September 20, 2004, from [http://www.ethikrat.org/english/publications/Opinion\\_Cloning.pdf](http://www.ethikrat.org/english/publications/Opinion_Cloning.pdf)
- Goffman, E. (1961). *Encounters*. Indianapolis: Bobbs-Merril.
- Gollenia, M. C. (1999). *Ethische Entscheidungen und Rechtfertigungen unter der besonderen Bedingung der sozialen Identität* [Ethical decisions and justifications on special condition of social identity.]. Unpublished dissertation, University of Hamburg.
- Hackel, S. (1995). *Berufliche Sozialisation und Identität ost- und westdeutscher Arbeitnehmer* [Professional socialization and identity of East- and West-German employees.]. Unpublished dissertation, University of Hamburg.
- Hunt, S. D., & Vitell, S. (1986). A general theory of marketing ethics. *Journal of Macromarketing*, 6 (Spring), 5-16.
- Janis, I. L. (1972). *Victims of groupthink*. Boston: Houghton Mifflin.
- Jones, T. M. (1991). Ethical decision making by individuals in organizations: An issue contingent model. *Academy of Management Review*, 16 (2), 366-395.
- Kenrick, D. T., Neuberg, S. L., & Cialdini, R. B. (2005). *Social psychology: Unraveling the mystery* (3<sup>rd</sup> ed.). Boston, MA: Pearson.

- Kunda, Z., & Spencer, S. J. (2003). When do stereotypes come to mind and when do they color judgment? A goal-based theoretical framework for stereotype activation and application. *Psychological Bulletin*, 129 (4), 522-544.
- Kurtines, W. M. (1984). Moral behavior as rule governed behavior: A psychosocial role-theoretical approach to moral behavior and development. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Morality, moral behavior, and moral development: Basic issues in theory and research* (pp. 303-324). New York: Wiley.
- Mac Intyre, A. (1976). *A Short History of Ethics*. London : Routledge & Kegan Paul.
- Maeng, Y.-J. (1995). *Ethische Grundpositionen als Handlungsrechtfertigung interpersonaler Handlungen: Ein Kulturvergleich zwischen Korea (ROK) und Deutschland [Ethical positions as justifications of interpersonal actions: a cultural comparison between Korea and Germany.]*. Unpublished dissertation, University of Hamburg.
- McDaniels, T., Gregory, R., & Fields, D. (1999). Democratizing risk management: Successful public involvement in local water management decisions. *Risk Analysis*, 19 (3), 497-510.
- McGee, G., Spanogle, J. P., Caplan, A. L., & Asch, D. A. (2001). A national study of ethics committees. *Journal of Bioethics*, 1 (4) Fall, 60-64.
- Mitcham, C. (1990). Ethics in bioengineering. *Journal of Business Ethics*, 9, 227-231.
- Moreland, R. L., Levine, J. M., & Wingert, M. L. (1996). Creating the ideal group: Composition effects at work. In E. H. Witte & J. H. Davis (Eds.), *Understanding group behavior Small group processes and interpersonal relations*. (Vol. 2, pp. 11-35). Mahwah, NJ: Erlbaum.
- Premeaux, S. R., & Mondy, R. W. (1993). Linking management behavior to ethical philosophy. *Journal of Business Ethics*, 12 (5), 349-357.
- President's Council on Bioethics (2001). Executive Order 13237 of November 28, 2001. Retrieved June 30, 2004, from <http://www.bioethics.gov>
- Rawls, J. (1971). *A theory of justice*. Cambridge, MA: Belknap Press of Harvard University Press.
- Rutherford, M. D. (2004). The effect of social role on theory of mind reasoning. *British Journal of Psychology*, 95, 91-103.
- Sarbin, T. R., & Scheibe, K. E. (1983). A model of social identity. In T. R. Sarbin & K. E. Scheibe (Eds.), *Studies in social identity*. New York: Praeger.
- Scanlon, T. M. (1999). *What we owe to each other* (2<sup>nd</sup> ed.). Cambridge, MA: Belknap Press of Harvard University Press.
- Schönecker, D. (2005). The role of moral philosophers in ethics committees. *Deliberation Knowledge Ethics*, 16 (1), 60-62.

- Stead, W. E., Worrell, D. L., & Stead, J. G. (1990). An integrative model for understanding and managing ethical behavior in business organizations. *Journal of Business Ethics*, 9 (3), 233-242.
- Tansey, R., Brown, G., Hyman, R., & Dawson, L. (1994). Personal moral philosophies and the moral judgments of salespeople. *Journal of Personal Selling and Sales Management*, 14 (1), 59-76.
- Tuchman, B. (1984). The march of folly. From Troy to Vietnam. London: Joseph.
- Turner, R. H. (1972). Role. Sociological aspects. In D. L. Sills (Ed.), *International encyclopedia of the social sciences* (Vol. 13, pp. 552-557). New York: Macmillan and the Free Press.
- Turner, R. H., & Colomy, P. (1993). Role differentiation: Orienting principles. In E. J. Lawler & B. Markovsky (Eds.), *Social psychology of groups: A reader* (pp. 23-49). Greenwich, CT: JAI Press.
- Tyler, T. R., Boeckmann, R. J., Smith, H. J., & Huo, Y. J. (1997). *Social justice in a diverse society*. Boulder, CO: Westview.
- Witte, E. H., & Doll, J. (1995). Soziale Kognition und empirische Ethikforschung. Zur Rechtfertigung von Handlungen [Social cognition and empirical ethics research. As to the judgment of behavior.]. In E. H. Witte (Hrsg.), *Soziale Kognition und empirische Ethikforschung* (S. 97-115). Lengerich: Pabst.
- Witte, E. H. (2001). Classical ethical positions and their relevance in justifying behavior: A model of prescriptive attribution. *Hamburger Forschungsberichte aus dem Arbeitsbereich Sozialpsychologie, HaFoS*, 38. University of Hamburg.
- Witte, E. H. (2002a). Ethische Grundpositionen und ihre Bedeutung bei der Rechtfertigung beruflicher Handlungen [Ethical positions and their relevance for justifying job-related behavior.]. *Zeitschrift für Personalforschung*, 16, 156-168.
- Witte, E. H. (2002b). Kommentar: Ethik-Räte oder das Lösen komplexer Probleme in Gruppen [Comment: Ethics councils or the solution of complex problems in groups.]. *Wirtschaftspsychologie*, 4 (3), 63-64.
- Witte, E. H. (2002c). Classical ethical positions and their relevance in justifying behavior: A model of prescriptive attribution. *Hamburger Forschungsberichte aus der Arbeitsgruppe Sozialpsychologie, HaFoS Nr. 42*. Universität Hamburg. <http://www.uni-hamburg.de/fachbereiche-einrichtungen/fb16/absozpsy/HAFOS-42.pdf>
- Witte, E. H., & Heitkamp, I. (2005). Die Aufgabe von Ethik-Komitees: eine komplexe Gruppenleistung [The task of ethics committees: a complex group effort.]. *Erwägen, Wissen, Ethik*, 16 (1), 73-74.
- Woodland, D. J. A. (1968). Role; social role; role-taking; role conflict. In D. Mitchell (Ed.), *A dictionary of sociology* (pp. 148-152). London: Routledge & Kegan Paul.



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Prof. Dr. Erich H. Witte  
Universität Hamburg  
Arbeitsbereich Sozialpsychologie  
Von-Melle-Park 5  
20146 Hamburg  
E-Mail: witte\_e\_h@uni-hamburg.de.

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