Institution of Technology and Society

An inquiry into divergent principles of distributive justice

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Abstract

This thesis reports the results of a study that had the following purpose; is there divergence in attitudes towards legally and criminally distributed resources among men versus women and adolescents versus senior citizens due to different principles of distributive justice; equity, equality and need. The different groups of people were as follows; men (89), women (87), adolescents (91) and senior citizens (85). A total of 176 questionnaires were answered by the respondents in their natural habitat. T-tests were conducted to scrutinise hypotheses. The foremost result of the study is that men are more negative than women concerning both criminally and legally distributed resources.

The purpose of the thesis has been to examine if there is divergence in attitude towards legally and criminally distributed resources among two different groups (sex and age) of people; 1. Men versus women and 2. Adolescents versus senior citizens, due to different principles of distributive justice.

The reason for conducting this study is that there is a complexity in attitudes toward crime that is present independently of sex and age, one representative example of the argumentation is the fear of being exposed to crime (Apropå, 2005). The crime theft is used in this study because of the ease for people to conceptualise that specific crime.

Attitudes in this thesis are defined as likes or dislikes of objects, people, situations or other aspects of the world (Smith, Nolen-Hoeksma, Fredrickson & Loftus, 2003). This thesis investigates a cognitive and/or emotional dimension of human beings in the
form of attitudes. The explicit attitudes in this thesis are at first hand attitudes toward different principles of distributive justice, and at second hand attitudes toward criminally distributed resources. The questionnaire contained questions that dealt with behaviour of hypothetical people that the respondents answered to according to their cognitive and/or emotional attitudes.

The definition of distributive justice used in this paper is that distributive justice deals with human values about justice and how outcomes are distributed (Törnblom & Vermunt, 2007).

The different principles of distributed justice in this thesis are defined as follows:

**Equity.** The definition of equity used in this thesis is; the distribution of rewards or resources according to individual contributions, which means that a low contribution gives a low outcome and a high contribution gives a high outcome, that is, equity could be described as a meritocratic principle (Deutsch, 1985). The principle of equity is often avoided if possible, because it ranks effort or humans (Harris, 1993). A practical example is that dating and mating couples are matched in orders of rank, socially, most of the time (Harris, 1993).

**Equality.** The definition of equality used in this thesis is; equal payment to all members of a group, which means that the size of the stake is unimportant since everyone gets the same outcome. (Deutsch, 1985). The equality principle is practical to use since no advanced cognitive work is required in the use of equality (Messick, 1993). If a small group is assembled and supposed to share some kind of resource, it is common that the group uses the equality principle to divide the resource equally among the group members (Messick, 1993).

A factor that seems to obstruct or make equal sharing less likely to occur is, for example, a competitive situation, that is, “first come, first served”. For example, a person at the front in a ticket line does not think that he or she should share the good seats with those at the back of the line (Messick, 1993).

**Need.** The definition of need used in this thesis is; distributions according to the individual’s need for the goods being distributed, which means that the person with greatest need of help receives the most help (Deutsch, 1985).

The themes in this thesis are divided into minor themes such as (1) attitudes based on sex, (2) attitudes of adolescents and, (3) those of senior citizens, as well as, (4)
distributive justice and (5) principles of justice (equity, equality and need). The focus of this study is on differences between people of different sex (men and women) and age groups (adolescents and senior citizens) in relation to the principles of distributive justice. Arguments for this proposition are presented in the introduction, scrutinised by the hypotheses and finally accounted for in the result and discussion.

The social psychological research field of social justice is divided into different subcategories, of which the two most common are distributive justice and procedural justice. This thesis deals with distribution of resources and therefore incorporates distributive justice which is a subcategory of social justice. The motive for using distributive justice is that it is an up to date issue most of the time and people tend to have strong opinions and attitudes, concerning different issues related to distributive justice, which they express. For example, a lawsuit concerning file sharing has attracted attention in the Swedish media during the work of this thesis.

The motive for combining distributive justice with a criminal frame is that there is a great lack in research within this field. The same thing goes for senior citizens and distributive justice as well as senior citizens and attitudes toward crime.

In addition to distributive justice, three further variables are sex, age group and the nature of the resource. These three variables are represented by the two sex (men and women), the age groups of the adolescents (16-19 years) and senior citizens (65 years and older), and the nature of the resource (legal or criminal). The focus concerning this study (divergence in attitudes) is tested by hypotheses that are accounted for below Hypotheses.

**Earlier research concerning attitudes**

*Attitudes based on sex.* A purpose of this study is to reveal sex divergence between the three principles of distributive justice. Hypotheses in the thesis suggest that men are more negative towards criminally distributed resources than women. When it comes to actual overt behaviour and punishment, men are sentenced for crimes to a greater extent than women, both worldwide and in Sweden (Brottsförebyggande rådet, 2008). According to official statistics, a total of 125 156 Swedish persons were found guilty of offences during 2007. This figure’s sex representation, concerning crime, is
approximately 83% men and approximately 17% women. The specific crime of theft, which this study implicitly scrutinises through the criminally distributed resources, is overrepresented by men in the statistics. The incidence numbers reveal that approximately 75% of those found guilty for theft were men and 25% were women (Brottsförebyggande rådet, 2008).

With regard to offences, men are represented in higher numbers than women according to the statistics shown above. However, there is an anomaly, since at the same time research has shown that men have a more negative attitude toward criminal acts [sic!] than women do (Applegate, Cullen & Fisher, 2002). This paradox is an example of the components of the ABC-model of social cognition that will be presented below regarding the difference between behaviour and cognition.

Implications and exceptions do however exist, for example, a Chinese study has shown that Chinese university students seem to have the same view on crime regardless of sex since there were both male and female respondents in the Chinese study (Lambert, Jiang, Jin & Tucker, 2007).

When attitude differences are examined, concerning all kinds of different subjects, men do tend to have a more punitive attitude and are less empathic in general than women (Applegate et al, 2002; 1996; Skovron, Scott & Cullen, 1989; Toussaint & Webb, 2005; Wark & Krebs). An interesting study is the one of Applegate et al, (2002). They show that women have a more supportive view of the treatment of offenders and support punishment less, in contrast to men who had the opposite opinion, that is, men support punishment more than the treatment of offenders.

Toussaint and Webb (2005) conducted a study which reveals that women are more empathetic than men. This study does, however, reveal an implication. Toussaint and Webb did at the same time show that there are no divergence between men and women with regard to forgiveness, although forgiveness were defined differently by men and women. The study of Toussaint and Webb can therefore be seen as an example of the above mentioned view of perceiving human beings with the three components of affect, behaviour and cognition, and the differences between these components. In this case however, the divergence is not shown at an intra individual level but according to sex.
Wark and Krebs (1996) conducted a study which reveals similar result to the study of Toussaint and Webb. Wark and Krebs did, however, use a different theme than Toussaint and Webb. They investigated if there are sex differences in relation to real-life moral dilemmas. The main results of the study indicate that women make decisions that are more empathetic than those of men, with regard to the same real life moral dilemmas (Wark & Krebs, 1996).

Another study by Stimpson, Jensen & Neff (1992) shows that the empathetic characteristic of women is present cross-culturally between an individually oriented culture as the United States and the collective cultures of Asian countries (Stimpson et al, 1992). Men and women seem to have different attitudes based on divergent moral reasoning. While men find rules and rights to be important factors, women find caring and the entailing responsibility for others of great importance (Stimpson et al, 1992). This could be one factor that may explain why men have a more punitive attitude than women, which has been argued by the above mentioned studies of Applegate et al, (2002), Toussaint and Webb (2005), Wark and Krebs (1996) and Skovron et al, (1989).

**Attitudes of adolescents.** Adolescents are defined as 16-19 year olds in this study. A lot of developmental psychological research has been done on the subject of adolescents, which makes it easy to obtain information from this rich source of knowledge. Adolescence is a part of life that contains great change. The step from adolescent to adult contains a rise in hormone levels and cognitive ability. Experiences of a social nature also occur (Rosenblum & Lewis, 2003). Earlier research has shown that adolescents have a less punitive attitude than senior citizens (Hough & Park, 2003). It has also been shown that the moral judgements of adolescents often concern the avoidance of punishment (Smetana & Turiel, 2003). Adolescents tend to be open toward new experiences and phenomena to a great extent, which can be seen as a part of the development of independence in adolescents (Kroger, 2003; Zimmer-Gembeck & Collins, 2003). An aspect of this new found extroversion is that friends and attitudes are more exchangeable during adolescence than they have been earlier in life (Brown & Klute, 2003). It is a dubious project to categorise the attitudes of adolescent boys and girls, since girls mature approximately two years before boys according to Diver (1990); the maturing process concerns both physical and mental development.
Attitudes of senior citizens. Senior citizens are defined as 65 years or older in this study. Earlier research on attitudes has mainly excluded senior citizens. This study hopefully contributes to reducing this shortcoming to some degree. An interesting fact based on earlier research is that senior citizens tend to have a more punitive attitude towards crime than adolescents (Hough & Park, 2003; Klein, 2003; Paulin, Searle & Knaggs, 2003). Furthermore, senior citizens also tend to be more negative towards new experiences and phenomena in relation to other adults (Hagberg, 2000). This rigidity or negative posture can be explained with the help of the continuity theory invented by Neugarten, Havinghurst & Tobin in the late 1960’s (Hagberg, 2000; Samuelsson, 2000). This theory claims that traits and behaviour apparent earlier in life will be enhanced later when senior citizens retire from working life (Reichard, Livson & Peterson, 1962; Samuelsson, 2000). It should be noted that there is a drawback with the study of Reichard et al, (1962), which is that all the respondents in their study were men.

The disengagement theory invented by Damianopoulos in the early 1960’s provides an alternative or complementary explanation of the rigid attitudes among senior citizens. This theory makes three claims: (1) all societies exclude senior citizens from participating in everyday life, (2) senior citizens withdraw uncompelled from diverse engagements, (3) this disengagement is supposed to be satisfying for both the individual and the society (Samuelsson, 2000). The disengagement theory obtains support from further research which shows that the effects of aging in the later part of life make people more introverted (Neugarten, 1977). One example of this is that senior citizens tend to be more rigid in their travel patterns than other adults (Lohmann & Danielsson, 2001). Another example is that senior citizens are more negative than other adults when sexual attitudes are on the agenda (Spector & Femeth, 1996). These two examples are representative for the differences in attitude, due to age, toward different phenomena in the social environment.

Earlier research concerning distributive justice. Social justice is a research field within social psychology, and mainly consists of two subcategories, procedural justice and distributive justice. This study focuses on distributive justice. The scientific assembly of social justice does not always separate social justice and distributive justice but instead categorises them (e. g. Fleischacker, 2005; Miller, 1992). Fleischacker goes as far as classifying economic justice with social justice and
distributive justice (2005). Different theories about the principles of distribution that could be used to achieve justice do exist. Many researchers in the social justice field claim that the way humans perceive their fair share of justice depends on several kinds of factors. Among those researchers are Deutsch (1975) and Törnblom & Vermunt (2007). The depending factors could, for example, be different principles of justice, such as equity, equality and need (Deutsch, 1975).

Theory

The ABC-model. The way of viewing human beings in this thesis is to use three components from the field of social cognition: affect, behaviour and cognition. These components are represented by the letters A, B, and C, and are related to the ABC-model (Rosenberg & Hovland, 1960). The three components of the ABC-model do not always converge, since humans often act one way (behaviour) and intellectualise (cognition) in another (Breckler, 1984). Affect and behaviour, which are other aspects of human beings, are not explicitly scrutinised in the current study, but are important components to consider. Affect is, however, implicitly scrutinised in the study, since affect can be seen as an extended component of cognition (Rosenberg & Hovland, 1960).

The ABC-model of social cognition can be used to clarify the nature of attitudes. The expressional chain of the ABC-model is that cognition comes first followed by affect and finally behaviour, that is, the ABC-model should actually be abbreviated to CAB, if the expressional order was the deciding factor for the abbreviation. Attitudes appear as knowledge and belief in the cognitive aspect. Objects, persons or phenomena are analysed by knowledge and belief, which raise feelings and emotion. Moreover, feelings and emotion are the affective part in the ABC-model. The last step is behavioural action due to the feelings and emotion. The behavioural component of the ABC-model is easy to recognise, since it is shown in overt behaviour (Rosenberg & Hovland, 1960).

An excellent example that attitudes, as a cognitive component, and behaviour, which is an overt behavioural representation of attitudes, should not be bracketed is shown in a classic study of LaPiere (1934). LaPiere wrote 251 letters to restaurants and
other establishments all around the United States and asked if they would accept him and a Chinese couple as visitors to their establishments. Approximately 90% of the restaurants that replied stated they would definitely not accept them as guests. It should be mentioned that LaPiere and a Chinese couple had already visited all the establishments in advance, and they had been guests at all except one. LaPiere’s study is old and may have issues with validity. However, recent studies do support LaPiere’s, one of which is the work of Payne, Burkley, and Stokes (2008). Their study supports the view of LaPiere’s study and also shows that humans do have contradictory attitudes toward objects. However, this phenomenon has been previously described by Festinger, and is linked to the term, cognitive dissonance (Festinger, 1957). Cognitive dissonance causes an uncomfortable psychological tension, which can be handled by sorting out the attitudes that cause the disturbing tension (Festinger, 1957).

**Sex and the principles of distributive justice.** One important key and analytical tool that may be significant concerning sex based attitudes is the divergence of the moral standpoints between men and women. This thesis refers to Applegate et al, (2002); Skovron et al, (1989); Toussaint & Webb, (2005); Wark & Krebs, (1996) who have demonstrated that men have a more punitive attitude than women and that women are more empathetic than men. The logical, distributive justice principle that men prefer, according to the research presented above, is equity, if the above research is applicable to the study of this thesis. Women’s preferences, in contrast to that of men, should be equality and need, if the above research is applicable to the study of this thesis.

**Adolescents and the principles of distributive justice.** The development of autonomy and individuality among adolescents has strong cultural values in industrialised countries. Children are taught to make their own decisions, and overt behavioural expressions of autonomy can be seen to a great extent among adolescents (Zimmer-Gembeck & Collins, 2003).

The development of autonomy makes adolescents behave in an extrovert manner to a higher degree than during their earlier teens (Kroger, 2003). The prediction of behaviour and reasoning is always difficult since the components in the above mentioned ABC-model (which are read up on in Theory) quite often diverge. Moreover, it is especially hard to predict the behaviour and reasoning of adolescents because of
their development of psychological autonomy during adolescence to adulthood (Zimmer-Gembeck & Collins, 2003).

A principle that may please adolescents is equity, because of the independent nature of the specific principle, that is, equality can be regarded as dowdy. It has been shown that the moral judgements of adolescents often concern the avoidance of punishment (Smetana & Turiel, 2003). Criminally distributed resources may therefore be seen as not especially desirable due to expected punishment.

Senior Citizens and the principles of distributive justice. Senior citizens do, in general, lack the high degree of extroverted behaviour of adolescents. This can be explained with the help of the continuity theory or the disengagement theory, which have been presented above (Hagberg, 2000; Samuelsson, 2000). If these theories have any influential power over the attitudes of senior citizens, it is not an exaggeration to argue that senior citizens are going to prefer equality and need rather than equity.

Purpose

The purpose of the thesis has been to examine if there is divergence in attitude towards legally and criminally distributed resources among two different groups (sex and age) of people; 1. Men versus women and 2. Adolescents versus senior citizens, due to different principles of distributive justice.

Hypotheses

The hypotheses that were investigated by the author of this study were as follows:

Hypothesis 1a: Men are more negative than women towards criminally distributed resources that are distributed according to the distributive justice principle of equity.

Hypothesis 1b: Men are more negative than women towards criminally distributed resources that have been distributed according to the distributive justice principle of equality.

Hypothesis 1c: Men are more negative than women towards criminally distributed resources that have been distributed according to the distributive justice principle of need.
Hypothesis 1d: Men are more negative than women towards legally distributed resources that have been distributed according to the distributive justice principle of equity.

Hypothesis 1e: Men are more negative than women towards legally distributed resources that have been distributed according to the distributive justice principle of equality.

Hypothesis 1f: Men are more negative than women towards legally distributed resources that have been distributed according to the distributive justice principle of need.

Hypothesis 2a: Senior citizens are more negative than adolescents towards criminally distributed resources that have been distributed according to the distributive justice principle of equity.

Hypothesis 2b: Senior citizens are more negative than adolescents towards criminally distributed resources that have been distributed according to the distributive justice principle of equality.

Hypothesis 2c: Senior citizens are more negative than adolescents towards criminally distributed resources that have been distributed according to the distributive justice principle of need.

Hypothesis 2d: Senior citizens are more negative than adolescents towards legally distributed resources that have been distributed according to the distributive justice principle of equity.

Hypothesis 2e: Senior citizens are more negative than adolescents towards legally distributed resources that have been distributed according to the distributive justice principle of equality.

Hypothesis 2f: Senior citizens are more negative than adolescents towards legally distributed resources that have been distributed according to the distributive justice principle of need.

Method

The reason for using a questionnaire as method is that this approach best catches the abundance of attitudes that were measured. The study does have a comparative
approach and interviews would have been inadequate since a vast sum of comparative information could not have been obtained in the same extent with interviews for comparison (Bryman, 2002).

The participating respondents consisted of two different groups (sex and age).

The survey method designed as a questionnaire was used to scrutinise the hypotheses and collect the empirical material.

The operationalisation of concepts is accounted for below Instrument.

**Respondents**

The adolescents have been defined as 16 – 19 year olds. The common factor for the entire group of adolescents is that they are students at the same school.

The senior citizens have been defined as 65 years or older. Not all the respondents who are senior citizens were retired, since some of them were still part of the working life. The common factor for all the senior citizens is membership in some kind of organisation which arranges activities for them. In addition, the respondents consisted of both men and women. This applies to both groups. The selection of respondents was due to comfort. The respondents completed the questionnaires in their natural habitat. This pattern of action made it possible to hold the respondents apart concerning their results into their different bracketed groups in the study.

The different groups of people were lined-up as follows; men (89 N) versus women (87 N), and adolescents (91 N) versus senior citizens (85 N). The total number of respondents was 176 (176 N).

**Instrument**

The survey instrument that was used to obtain the empirical material was a questionnaire. Cronbach Alpha tests were undertaken to examine the reliability of the pilot study and also the main study.

The questions in the survey were formulated in Swedish, and answered using a Likert-scale with three grades. The three different grades were good, neither good nor bad, and bad. In addition, these three different types of levels were transformed into the
values 1, 2 and 3, for the mean comparison. Consequently, if a low value appeared concerning a special theme, this indicated that the respondent had a positive attitude about that special theme in relation to its questions, and the reverse applied for a high value. Six types of questions were used to cover the hypotheses. The maximum hypothetical mean was twelve. The survey had a total of twenty-four questions, and was conducted on location.

An example of a question that covered hypotheses 1a and 2a is: “Pupils that get high grades are allocated more hours in which to use computers at school than pupils that get lower grades”. An example of a question that covered hypotheses 1b and 2b is: “Staff in geriatric care distributes stolen medicine to the residents equally, regardless of the solvency of the residents”. An example of a question that covered hypotheses 1c and 2c is: “Pupils with reading and writing disabilities get access to stolen computers at school to a greater extent than the pupils who do not have reading and writing disabilities”. An example of a question that covered hypotheses 1d and 2d is: “Pupils that get high grades are allocated more hours in which to use computers at school than pupils that get lower grades”. An example of a question that covered hypotheses 1e and 2e is: “Staff in geriatric care distributes medicine to the residents equally, regardless of the solvency of the residents”. An example of a question that covered hypotheses 1f and 2f is: “Pupils with reading and writing disabilities get more access to computers at school than those pupils without reading and writing disabilities”.

The empirical material was analysed by using SPSS Version 15.0 (SPSS, Inc).

Procedure

The study’s respondents were informed that participation was voluntary. The participation of the respondents occurred during the spring of 2009. A natural habitat was used to obtain the empirical material. The adolescents answered the questionnaire at school and the senior citizens answered the questionnaire within the operation of the senior citizens organisations. The questionnaire took about ten minutes to complete.

The reason for conducting the survey on location was to avoid as much fall off as possible, since surveys which are distributed by post tend to have a certain level of fall off (Bryman, 2002). Furthermore, conducting the study on location meant it was
possible to answer any questions that the respondents may have had. No compensation was awarded to the respondents; it depended on the good will of the respondents. Fall off deletion due to missing values on each and every questions ranged from 0 % to 4 %. Fall off deletion due to missing values based on all questions in the procedure were 6.3 %.

Cronbach Alpha tests were undertaken to examine the reliability of the study. The case processing summary of the Cronbach Alpha of all hypotheses were ,74. This thesis claims that a value of ,70 Cronbach Alpha is acceptable. However, ,80 is frequently used as a rule of thumb (Bryman, 2002). The Cronbach Alpha on the questions ranged from ,80 to ,92 which means that all hypotheses with marginal ended up within the desired value of at least ,70.

_Pilot study._ A pilot study was conducted before the main study. The purpose of the pilot was to use the pilot as a try out for the questions in the forthcoming questionnaire. The pilot consisted of a survey that had twenty-seven respondents. Those respondents were chosen by random. It comprised forty-eight questions that were measured using a Likert-scale with 5 levels. These forty-eight questions were reduced to twenty-four in the main study.

The internal reliability differed between the questions in the survey on the Cronbach Alpha from ,43 to ,86. The vast difference of the Cronbach Alpha on the different effects in the pilot study can probably be explained by the low number of respondents. An additional explanation can also be the number of levels on the Likert-scale, which were 5 levels.

Since the pilot study had severe issues with internal reliability, some changes were made in the transformation from pilot to main study. The two most obvious changes were fewer levels on the Likert-scale and the rephrasing of the questions. The reason for changing the number of levels on the Likert-scale was to make the respondents take a more decisive position. The reason for changing the wording was to obtain fewer distractions in the text in order to realise a higher level of precision (read reliability).
**Result**

The foremost result of the study is that men are more negative than women concerning both criminally and legally distributed resources. T-tests were conducted on the empirical material to obtain data from the hypotheses. The hypotheses have been bracketed in synoptical fashion in the result in four different groups with three hypotheses in each group. The table headings below reveal the bracketed themes of each and every group.

The significance value ($p$) was set to $< .05$ for the rejection of the null hypothesis ($H_0$). The significance value between conditions ($\text{sig.}$) was set to $< 1.0$. The maximum hypothetical mean was twelve. So, if one value for a condition is 10.30 and the value for the other condition is 7.98 (as in hypothesis 1c, see Table 1) is there a significant difference between conditions.

**Result of hypotheses 1a to 1c.** Hypothesis 1a shows no significant difference, $p = .12$, $\text{sig.} = .60$. This means that the $H_0$ cannot be rejected.

Hypothesis 1b shows no significant difference, $p = .28$, $\text{sig.} = .35$. This means that the $H_0$ cannot be rejected.

Hypothesis 1c shows a significant difference, $p = .03$, $\text{sig.} = 2.32$. This means that the $H_0$ can be rejected.

The mean differences concerning hypotheses 1a – 1c can be beheld in table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M^*$</td>
<td>$SD^{**}$</td>
</tr>
<tr>
<td>1a Equity</td>
<td>10.93</td>
<td>2.36</td>
</tr>
<tr>
<td>1b Equality</td>
<td>10.43</td>
<td>2.31</td>
</tr>
<tr>
<td>1c Need</td>
<td>10.30</td>
<td>2.66</td>
</tr>
</tbody>
</table>

Table 1. The table describes the statistics of hypotheses 1a – 1c.

$M^*$ = Mean difference, $SD^{**}$ = Standard deviation, $N^{***}$ = Number of respondents (valid).

**Result of hypotheses 1d to 1f.** Hypothesis 1d shows a significant difference, $p = .02$, $\text{sig.} = 1.39$. This means that the $H_0$ can be rejected. However, there is a severe
implication concerning this hypothesis. The result is the opposite of what the hypothesis proposes. The consequence is that women were more negative than men towards legally distributed resources that have been distributed according to the distributive justice principle of equity.

Hypothesis 1e shows a significant difference, $p = .01$, sig. = 1.00. This means that the $H_0$ can be rejected.

Hypothesis 1f shows a significant difference, $p = .00$, sig. = 1.43. This means that the $H_0$ can be rejected.

The mean differences concerning hypotheses 1d – 1f can be beheld in table 2.

Table 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M^*$</td>
<td>$SD^{**}$</td>
</tr>
<tr>
<td>1d Equity</td>
<td>8.81</td>
<td>2.51</td>
</tr>
<tr>
<td>1e Equality</td>
<td>6.28</td>
<td>2.65</td>
</tr>
<tr>
<td>1f Need</td>
<td>6.98</td>
<td>2.62</td>
</tr>
</tbody>
</table>

Table 2. The table describes the statistics of hypotheses 1d – 1f. $M^*$ = Mean difference, $SD^{**}$ = Standard deviation, $N^{***}$ = Number of respondents (valid).

Result of hypotheses 2a to 2c. Hypothesis 2a shows no significant difference, $p = .21$, sig. = .53. This means that the $H_0$ cannot be rejected.

Hypothesis 2b shows no significant difference, $p = .20$, sig. = .03. This means that the $H_0$ cannot be rejected.

Hypothesis 2c shows a significant difference, $p = .00$, sig. = 1, 34. This means that the $H_0$ can be rejected.

The mean differences concerning hypotheses 2a – 2c can be beheld in table 3.
Table 3
Age group differences towards criminally distributed resources according to principles of distributive justice

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adolescents</th>
<th>Senior citizens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M^*$</td>
<td>$SD^{**}$</td>
</tr>
<tr>
<td>2a Equity</td>
<td>10.91</td>
<td>2.15</td>
</tr>
<tr>
<td>2b Equality</td>
<td>10.41</td>
<td>2.27</td>
</tr>
<tr>
<td>2c Need</td>
<td>9.67</td>
<td>3.16</td>
</tr>
</tbody>
</table>

Table 3. The table describes the statistics of hypotheses 2a – 2c. $M^*$ = Mean difference, $SD^{**}$ = Standard deviation, $N^{***}$ = Number of respondents (valid).

Result of hypotheses 2d to 2f. Hypothesis 2d shows a significant difference, $p = .02$, sig. $= 1.31$. This means that the $H_0$ can be rejected.

Hypothesis 2e shows a significant difference, $p = .70$, sig. $= 0.15$. This means that the $H_0$ cannot be rejected.

Hypothesis 2f shows a significant difference, $p = .01$, sig. $= 1.11$. This means that the $H_0$ can be rejected.

The mean differences concerning hypotheses 2d – 2f can be beheld in table 4.

Table 4
Age group differences towards legally distributed resources according to principles of distributive justice

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adolescents</th>
<th>Senior citizens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M^*$</td>
<td>$SD^{**}$</td>
</tr>
<tr>
<td>2d Equity</td>
<td>8.94</td>
<td>2.75</td>
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<tr>
<td>2e Equality</td>
<td>5.66</td>
<td>2.44</td>
</tr>
<tr>
<td>2f Need</td>
<td>5.61</td>
<td>2.45</td>
</tr>
</tbody>
</table>

Table 4. The table describes the statistics of hypotheses 2d – 2f. $M^*$ = Mean difference, $SD^{**}$ = Standard deviation, $N^{***}$ = Number of respondents (valid).

Eight out of twelve hypotheses are supported by the result of the T-tests that concern all twelve hypotheses. Out of those eight hypotheses did five hypotheses get support from $p$ and sig. Those five hypotheses are 1c, 1e, 1f, 2d and 2f. The results of these specific hypotheses as well of the other hypotheses are read up on in the tables.

If a comparison is made between the hypotheses that scrutinised sex divergence (Hypotheses 1a – 1f) and the hypotheses that scrutinised age groups (Hypotheses 2a – 2f), it can be seen that sex was a greater decisive factor than age. In hypotheses 1a- 1f
the decisive factor was sex in five out of six hypotheses. The exception was hypothesis 1d that gave a contradictory result. Hypothesis 1d stipulated that men are more negative than women towards legally distributed resources that have been distributed according to the distributive justice principle of equity. The result turned out to be the opposite.

Discussion

The purpose of this thesis has been to examine if there is divergence in attitude towards legally and criminally distributed resources among men versus women and adolescents versus senior citizens due to different principles of distributive justice. Twelve hypotheses were formulated to investigate the purpose of the study. A purpose of the discussion is to present analyses of deficits and strengths, firstly concerning validity and reliability. By way of introduction, this thesis starts with the main purpose of the discussion which is the results of the T-tests.

The introduction of this thesis proposed that there should be attitude differences between people of different sex (men and women) and age groups (adolescents and senior citizens) in relation to the principles of distributive justice. The study proved that differences would be at hand in all conditions though all differences that appeared did not converge with the stipulated hypotheses.

This thesis has earlier argued that women are more empathetic than men (Applegate et al, 2002; Skovron et al, 1989; Toussaint & Webb, 2005; Wark & Krebs, 1996). Since the result of this thesis supports the presented theory, the study stands firm with regard to the assumption.

New knowledge has been contributed with the help of this study. The new knowledge that has appeared is that adolescents turned out to be more negative than senior citizens towards criminally distributed resources. This result is the opposite of what the hypotheses (2a - 2c) proposed. Also the earlier research that has been accounted for in this thesis does support these hypotheses. The earlier research that this thesis refers to is for example that adolescents have a less punitive attitude than senior citizens (Hough & Park, 2003). It has also been shown that the moral judgements of adolescents often concern the avoidance of punishment (Smetana & Turiel, 2003). Adolescents tend to be open toward new experiences and phenomena to a great extent,
which can be seen as a part of the development of independence in adolescents (Kroger, 2003; Zimmer-Gembeck & Collins, 2003). This thesis suggests that the deviant result may be explained by the emplacement of the senior citizens. Senior citizens as respondents were probably not representative if an inference perspective would have been used since the common factor for all the senior citizens is membership in some kind of organisation which arranges activities for them. This lack of representation concerns the thesis argument that the disengagement theory and related research show that the effects of aging in the later part of life make people more introverted (Neugarten, 1977; Samuelsson, 2000).

The relation between the disengagement theory (Samuelsson, 2000) and the research that argues that senior citizens are more punitive than adolescents (Hough & Park, 2003; Klein, 2003; Paulin et al, 2003) and that senior citizens are more rigid in their attitudes (Lohmann & Danielsson, 2001; Spector & Femeth, 1996) do not have to be synonymous or equivalent with each other. Perhaps does engagement make senior citizens loose interest in the ongoing things in society and therefore should the engagement theory and other research be seen as dichotomous or divergent in relation toward each other.

An alternative explanation to the engagement theory is the ABC-model. This model takes the discrepancy between affect, behaviour and cognition into consideration. The disengagement theory can be seen as a cognitive product and does lack the complexity that the ABC-model provides why the engagement theory may need to be revised.

Another fact to consider is that this thesis has previously mentioned the lack of research on senior citizens, and proposes that this fact may be valid with regards to the reason for the last six hypotheses giving such contradictory results.

It is not dubious to argue that answers or solutions have been manifested in this thesis concerning the hypotheses. The argument for this point of view is that all hypotheses in three bracketed groups (1a -1c, 2a – 2c and 2d – 2f) out of four bracketed groups were given support by the T-tests.

**Deficits of the study.** A deficit is that the senior citizens, as a respondent group, were not representative for the elderly, in general, since they are members of associations for aged people. This lack of representation concerns the thesis argument...
that the disengagement theory and related research show that the effects of aging in the later part of life make people more introverted (Neugarten, 1977). The senior citizens in the study should, for the above reasons, be regarded as contextual. Consequently, the thesis cannot argue for any kind of statistical inference or generalisability that is out of context. The same applies for the adolescents that participated in the study, since they all attend the same school in a small town located in Sweden. That is, the study lacks in external validity because it is context specific (Bryman, 2002).

**Strengths of the study.** Since theoretical validity is linked to reliability and can almost be regarded as equivalent to reliability, no analysis has been made that handles the theoretical validity (Bryman, 2002). The reliability has been evaluated by Cronbach alpha tests and therefore has theoretical validity implicitly been evaluated. The Cronbach alpha value was within the desirable level and is accounted for below the heading Pilot study.

The internal validity can be considered a strength of the study since good, cause and effect-patterns can easily be discerned in the study. Only one (hypothesis 1d) out of twelve hypotheses is pattern-breaking.

This study also claims that its ecological validity must be regarded as high. One argument for this stand is that the study did not intrude into the everyday life of the respondents to any great extent. Another argument is that no experimental or artificial environments were created for the respondents as they answered the questions (Bryman, 2002).

**Suggestions for further studies.** In this thesis, the legal and criminal resources that are distributed have been a constant in the type of resource, apart from the legal or criminal context. A prospective study could treat the resources as more dynamic variables instead. A suggestion is to use Foas model of resources that holds six different forms of resources which vary in two ways on two different axes. These axes define the resources from concrete to abstract and universalistic to particularistic (Foa & Foa, 1980).

This thesis also suggests that a greater differentiation concerning the respondents in a future study is desirable; i. e. the respondents could be divided according to sex with age as a subgroup or the opposite, age with sex as a subgroup. This could be executed with support of an Anova-test.
References


Research and Social Applications (pp. 1-12). Aldershot, UK: Ashgate Publishing Limited.


Appendix 1

Survey questions
The following is a compilation of all the survey questions in the main study.

Questions concerning hypotheses 1a and 2a

1. Staff in geriatric care distributes stolen medicine to the residents in relation to the residents’ solvency. That is, the resident who pays the total sum for the medicine is given a full ration while a resident who pays less money is given a smaller ration *).
2. An employer pays his/her employees with stolen money in relation to the employees’ efforts. That is, the person who produces the most receives a higher salary than the employee who produces less*).
3. A child-welfare worker gives stolen fruit as a reward to those children who manage to complete an assignment, whilst the children that do not complete the assignment receive no fruit *).
4. Pupils that get high grades are allocated more hours in which to use stolen computers at school than pupils who get lower grades *).

Questions concerning hypotheses 1b and 2b

1. Staff in geriatric care distributes stolen medicine to the residents equally, regardless of the solvency of the residents *).
2. An employer pays his/her employees equally with stolen money regardless of effort. That is, the employees receive the same salary irrespective of how much they produce *).
3. A child-welfare worker gives stolen fruit as a reward to all the children who try to complete an assignment, regardless of success or failure *).
4. Pupils that get high grades in school are allocated the same number of hours to use stolen computers at school as those pupils who get lower grades *).

Questions concerning hypotheses 1c and 2c

1. Staff in geriatric care distributes stolen medicine to the residents in relation to the residents’ need. That is, the staff gives priority to those residents that are in greater need of the medicine at the expense of those that are in lesser need *).
2. An employer pays his/her employees with stolen money in relation to the employees need. That is, the employees that are in greater need of money receive a higher salary at the expense of those that are in lesser need of a high salary *).
3. A child-welfare worker gives stolen fruit to a greater extent to those children that seldom eat fruit at home, whilst the children that eat fruit at home to a greater extent receive less fruit *).
4. Pupils with reading and writing disabilities get access to stolen computers at school to a greater extent than the pupils who do not have reading and writing disabilities *).
Questions concerning hypotheses 1d and 2d

1. Staff in geriatric care distributes medicine to the residents in relation to the residents’ solvency. That is, the resident that pays the total sum is given a full ration while a resident that pays less money is given a smaller ration *).
2. An employer pays his/her employees in relation to the employees’ efforts. That is, the person that produces the most receives a higher salary than the employee that produces less*).
3. A child-welfare worker gives fruit as a reward to those children that manage to complete an assignment, whilst the children who do not complete the assignment receive no fruit *).
4. Pupils that get high grades are allocated more hours in which to use computers at school than pupils that get lower grades *).

Questions concerning hypotheses 1e and 2e

1. Staff in geriatric care distributes medicine to the residents equally, regardless of the solvency of the residents *).
2. An employer pays his/her employees equally, regardless of effort. That is, the employees get the same salary regardless of how much they produce *).
3. A child-welfare worker gives fruit as a reward to all children that try to complete an assignment, regardless of success or failure *).
4. Pupils that get high grades in school are allocated the same number of hours to use computers at school as those pupils that get lower grades *).

Questions concerning hypotheses 1f and 2f

1. Staff in geriatric care distributes medicine to the residents in relation to the residents’ need. That is, the staff gives priority to those residents that are in greater need of the medicine at the expense of those that are in lesser need *).
2. An employer pays his/her employees in relation to the employees’ need. That is, the employees that are in greater need of money receive a higher salary at the expense of those that are in lesser need of a high salary *).
3. A child-welfare worker distributes fruit to a greater extent to those children that seldom eat fruit at home, whilst those children that eat fruit at home often receive less fruit *).
4. Pupils with reading and writing disabilities get more access to computers at school than those pupils without reading and writing disabilities *).

*). The questions in the survey were originally in Swedish. The original survey is presented in Appendix 2 on the next page.
Appendix 2

The original survey

INSTRUKTION:


MED TACK PÅ FÖRHAND: HANS HÖGSVED
SOCIALPSYKOLOGISKT PROGRAM
Jag är:

Man                 Kvinna

☐                 ☐


Bra                                               Varken bra eller dåligt                                      Dåligt
☐                                               ☐                                                     ☐


Bra                                               Varken bra eller dåligt                                      Dåligt
☐                                               ☐                                                     ☐


Bra                                               Varken bra eller dåligt                                      Dåligt
☐                                               ☐                                                     ☐

4. Personal på ett äldreboende fördelar stulen medicinen lika mellan boende på äldreboendet, oavsett vad de boende betalar för medicinen.

Bra                                               Varken bra eller dåligt                                      Dåligt
☐                                               ☐                                                     ☐
5. Personal på ett äldreboende fördelar medicin utifrån behov. Det vill säga; personalen prioriterar personer med större behov av medicinen framför de som inte har ett lika stort behov av medicinen.

Bra Varken bra eller dåligt Dåligt
☐ ☐ ☐

6. Personal på ett äldreboende fördelar stulen medicin utifrån behov. Det vill säga; personalen prioriterar personer med större behov av medicinen framför de som inte har ett lika stort behov av medicinen.

Bra Varken bra eller dåligt Dåligt
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Bra Varken bra eller dåligt Dåligt
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Bra Varken bra eller dåligt Dåligt
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9. En arbetsgivare betalar sina anställda lika mycket oavsett de anställdas arbetsinsats. Det vill säga; de anställda får lika mycket betalt oavsett om de producerar olika mycket.

Bra Varken bra eller dåligt Dåligt
☐ ☐ ☐
10. En arbetsgivare betalar sina anställda lika mycket med stulna pengar oavsett de anställdas arbetsinsats. Det vill säga; de anställda får lika mycket betalt oavsett om de producerar olika mycket.

Bra                                               Varken bra eller dåligt                                      Dåligt
□                                               □                                                               □


Bra                                               Varken bra eller dåligt                                      Dåligt
□                                               □                                                               □


Bra                                               Varken bra eller dåligt                                      Dåligt
□                                               □                                                               □

13. En förskolefröken belönar förskolebarn som klarat en uppgift med frukt, samtidigt som förskolebarn som inte klarat samma uppgift inte får frukt.

Bra                                               Varken bra eller dåligt                                      Dåligt
□                                               □                                                               □

14. En förskolefröken belönar förskolebarn som klarat en uppgift med stulen frukt, samtidigt som förskolebarn som inte klarat samma uppgift inte får frukt.

Bra                                               Varken bra eller dåligt                                      Dåligt
□                                               □                                                               □
15. En förskolefröken belönar alla förskolebarn med frukt oavsett om de har klarat en uppgift eller misslyckats.

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16. En förskolefröken belönar alla förskolebarn med stulen frukt oavsett om de har klarat en uppgift eller misslyckats.

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17. En förskolefröken ger frukt i större utsträckning till barn som sällan äter frukt hemma, medan barn som ofta äter frukt hemma får mindre frukt.

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18. En förskolefröken ger stulen frukt i större utsträckning till barn som sällan äter frukt hemma, medan barn som ofta äter frukt hemma får mindre frukt.

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19. Elever som får höga betyg i skolan tilldelas fler timmar att använda dator i skolan än elever som får lägre betyg.

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20. Elever som får höga betyg i skolan tilldelas fler timmar att använda stulna datorer i skolan än elever som får lägre betyg.

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21. Elever som får höga betyg i skolan tilldelas lika många timmar att använda dator i skolan som elever som får lägre betyg.

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22. Elever som får höga betyg i skolan tilldelas lika många timmar att använda stulna datorer i skolan som elever som får lägre betyg.

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23. Elever som har läs- och skrivsvårigheter får tillgång till datorer i skolan i större utsträckning än elever utan läs- och skrivsvårigheter.

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24. Elever som har läs- och skrivsvårigheter får tillgång till stulna datorer i skolan i större utsträckning än elever utan läs- och skrivsvårigheter.

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DU ÄR NU KLAR. VAR GOD OCH VÄND DENNA ENKÄT MED TEXTEN MOT BORDSYTAN. TACK FÖR DIN MEDVERKAN!