Disability, Social Identity, and Entrepreneurship:

Evidence from a laboratory experiement in rural Uganda

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ABSTRACT

People with disabilities (PWDs) often face social exclusion due to the stigma associated with having a disability. This results in many PWDs being disadvantaged economically, in education attainment and career opportunities. Entrepreneurship has come to be considered an important tool in poverty alleviation and increased empowerment of PWDs, but the prejudice they encounter creates barriers. In this thesis we present a laboratory experiment investigating the psychological barriers among young PWDs to entrepreneurship in rural Uganda. The participants are mainly secondary school students about to make decisions in terms of their future occupations. Youth unemployment rates are high, indicating that many need to become self-employed out of necessity to provide for themselves and their families. Using priming as a tool, we make social identities salient. Social identity suggests behavioural guidelines for people. We identify the marginal effects of social norms on PWDs in terms of five major entrepreneurial characteristics: risk and time preferences, willingness to compete, performance under pressure and self-efficacy. In addition, we explore the negative stereotypes PWDs face in their community. We find no significant priming effect on any of the characteristics, suggesting there are no disability-specific social norms related to these entrepreneurial characteristics among PWDs. We do not find that non-PWDs have negative stereotypes with regards to the abilities of PWDs, but the evidence suggests that PWDs perceive themselves as inferior. Our findings are encouraging in terms of policy implementation, as the results suggest that PWDs do not need specific targeting when promoting entrepreneurship.

PREFACE

This paper presents our final thesis in Economics at the Norwegian School of Economics (NHH). This was a follow-up study to a companion study conducted in Kampala in the fall of 2011. The Norwegian Association for Disabled (NAD) and the Norwegian School of Economics initiated the study to document results in some of the projects that NAD supported abroad. The research was conducted in cooperation with the National Union of Disabled Persons of Uganda (NUDIPU) and the local government in the district of Tororo.

We would like to thank NUDIPU and the local government of Tororo, including all assistants, for the great implementation of the study. We would also like to express our gratitude to Professor Bertil Tungodden and Professor Kjetil Bjorvatn for having the confidence in our abilities to execute this project successfully. Additionally, we would like to thank Professor Erik Sørensen for great statistical guidance.

Finally, we wish to thank our families for great support and motivation throughout this process.

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1 INTRODUCTION

There are over one billion people living with a disability, 80 per cent of which reside in developing countries (WHO and WB, 2011). People with disabilities (PWDs) have less success socially, economically, in school and in their work life resulting in a greater chance of poverty (Elwan, 1999). Data reveal that one in five living under the $1.25 a day poverty line, has a disability (WHO and WB, 2011). Hence, it is important to implement measures directed towards PWDs to ethically achieve the first Millennium Development Goal; of halving the number of people living in extreme poverty by 2015 (McClain-Nhlapo, 2010).[1]

The WHO uses the following definition of disability:

 "Disability is a generic term that includes impairments in the body functions and structures, activity limitation and participation restrictions. It indicates the negative aspects of the interaction between an individual (with a "health condition") and his context (environmental and personal factors)" (WHO, 2006 in Barron and Ncube, 2010, p. 7).

Three major types of discrimination facing PWDs may serve as examples of the negative interaction between PWDs and their environment (DFID, 2000). Firstly, institutional discrimination: refers to lack of institutions, e.g. schools educating children with disabilities and judicial institutions keeping PWDs from becoming repeated targets of abuse. Secondly, environmental discrimination: refers to situations where PWDs cannot participate due to physical or communicative barriers, e.g. a deaf person lacking a sign language interpreter at community meetings. Lastly, PWDs face attitudinal discrimination due to lack of knowledge or fear by others.

The challenges faced by PWDs are exemplified by a 2004 US survey which found that two-thirds of the unemployed working-age PWDs seeking employment failed in obtaining one. In some countries the unemployment rate among PWDs is as high as 80 per cent[2] and the cost of excluding PWDs from the labour market has been estimated to be between $1.37 and $1.94 trillion of the global annual GDP (Zadek and Scott-Parker 2001 in McClain-Nhlapo, 2010). These figures suggest that PWDs constitute a major untapped resource, but "lack of

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[1] Stated by former President of the World Bank, James Wolfensohn, in 2002.
[2] http://www.un.org/disabilities/default.asp?id=18 (accessed 15.05.2012)

access to education and vocational rehabilitation and training, lack of access to financial resources, [...] the inaccessibility of the workplace, and employers' perceptions of disability and disabled people" (WHO and WB, 2011, p. 250) acts as barriers for PWDs to gain employment. Enabling PWDs to become self-reliant through paid work, would not only empower them and reduce poverty levels, but could potentially strengthen the economic growth of a country.

Measures to increase the level of employment among PWDs in developing countries include education, anti-discrimination efforts, access to financial services and vocational rehabilitation and training (WHO and WB, 2011). However, few inclusive measures to improve the prospects of poor PWDs have been implemented, and governments and NGOs seem unable to effectively target this group (Ingstad and Grut, 2007). Additionally, the informal economy predominates and conventional employment options are lacking in many developing countries (WHO and WB, 2011). WHO and WB (2011) therefore recommend promoting self-employment aimed at PWDs to combat poverty in these countries.

In order to effectively implement policies promoting entrepreneurship, it is important to identify the potential barriers as well as the motivating factors behind the decision to become an entrepreneur. The Global Entrepreneurship Monitor distinguishes between necessity-driven and opportunity-driven entrepreneurs (Minniti et al., 2005, Reynolds et al., 2001). While opportunity-driven entrepreneurs identify a business opportunity to exploit, necessity-driven entrepreneurs are pushed into entrepreneurship due to unemployment or unsatisfactory work options. Necessity-driven entrepreneurs are over-represented in developing countries (Reynolds et al., 2001).

The World Report on Disability documents the insufficient awareness and lack of empirical research on disability issues (WHO and WB, 2011). Our study aims at increasing knowledge by investigating the psychological barriers to entrepreneurship that PWDs face in developing countries. By investigating the social norms and stereotypes affecting PWDs' beliefs, preferences and performances in dimensions relevant to entrepreneurship, we aim at contributing to a better understanding of how policies should be implemented to stimulate entrepreneurship among PWDs. Apart from our companion study (Øygard, 2012), we are not aware of any previous research investigating this topic. Therefore, this project acts as exploratory research. The findings add to the little existing research conducted on psychological barriers for PWD in entering entrepreneurship.

We target secondary school students because they face career choices of whether to continue studying, get a job or start a business. In that sense their present beliefs, preferences and performances could likely influence their career choices; for instance of whether to become entrepreneurs or not. Since these "characteristics" are not constant, it is important to study the people that are faced with such career choices in the nearby future, as their revealed characteristics become more relevant (Bjorvatn et al., 2012). Youth unemployment is also a large issue in the developing world and secondary students are therefore in the age group where many become entrepreneurs out of necessity (Ashton et al., 2005).

Our objective is to identify possible marginal behavioural effects on risk and time preferences, willingness to compete, performance under pressure and self-efficacy when making the social identity of PWDs unconsciously salient, through a method called priming. More specifically, we explore whether there are disability-specific social norms on risk and time preferences and willingness to compete. If such norms do exist, they should be identified in order to more efficiently implement programs that encourage PWDs to become entrepreneurs. There are known stereotypes with regards to performance under pressure and self-efficacy. PWDs are generally associated with being less able, and this might be especially evident in developing countries where a disability is often associated with a curse or punishment.[3] Such attitudes may have large effects; "negative attitudes and behaviours have an adverse effect on children and adults with disabilities, leading to negative consequences such as low self-esteem and reduced participation" (Thornicroft, Rose, and Kassam 2007 in WHO and WB 2011, p. 6). Our hypothesis is therefore that we find negative marginal effects of the priming on performance under pressure and self-efficacy that stems from existing negative stereotypes of the abilities of PWDs.

Our companion study was conducted in Kampala, the capital of Uganda (Øygard, 2012) while this study took place in the rural District of Tororo in Eastern Uganda. The main motivation behind the choice of location was to investigate a more marginalised group of PWDs compared to that of our companion study. In Kampala, the main finding was that the PWDs experienced an empowerment effect; a "Yes, we can" effect when their disability-specific social identity was made salient. This shows that the social identity of having a disability among PWDs is not necessarily related to internalised negative stereotypes, but

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[3] As claimed by the District Rehabilitation Officer of Tororo, Mr Moses Moiza, and the subjects interviewed in the villages around Tororo town (March 12-14).

can also enter positively into the mind-set of a person. We do not expect to find the same optimistic results in Tororo since we predict that negative attitudes towards PWDs will be stronger in more rural areas, impacting the preferences and the self-efficacy among PWDs more detrimentally. We also believe that the findings in Tororo will be more representative for the whole of Uganda compared to those of Kampala as more than 88 per cent of PWDs live in rural areas (UBOS, 2006).

Our main findings suggest that there are no disability-specific social norms related to the five entrepreneurial characteristics studied, among PWDs. We also find that there are no negative stereotypes in terms of the abilities of PWDs among non-PWDs, but that negative stereotypes have been internalised among the PWDs, affecting their belief in their performance as a group.

The rest of the study is organised as follows. Section 2 gives a brief introduction into the theories of social identity and the five identified entrepreneurial characteristics. Section 3 gives an overview of PWDs' situation in Uganda and school participation rates. Section 4 describes our methods and gives an overview of the participants. Section 5 documents our main results. In section 6 we discuss our methods and results, comparing our results to the results from Kampala, and discuss possible policy implications. In section 7, we conclude.

2 THEORY

This section introduces theories of entrepreneurial characteristics with the main focus being on the five previously emphasised characteristics: Risk and time preferences, willingness to compete, performance under pressure and self-efficacy. The characteristics are discussed in light of the motivations of necessity-driven entrepreneurs. In addition we present the theoretical framework of priming social identity and relate this to relevant literature, including effects of stereotype threat on performance.

2.1 Entrepreneurial Characteristics

The meta study of Carter et al. (2003) identified five categories of reasons for entrepreneurship. These were: The need for personal development, which included being innovative and learning; the need for independence; the need for approval and personal recognition; the need to follow role models; and the perceived instrumentality of wealth. These reasons carry different weights depending on personal preference and the situation of the individual. For example, opportunity-driven and necessity-driven entrepreneurs are motivated by different factors, as discussed in the introduction. Tyszka et al. (2011) find that necessity-driven entrepreneurs are motivated by similar factors to regular wage earners; most importantly job security and having time for oneself and one's family. For the opportunity-driven entrepreneurs, the need for independence and achievement are considered most important.

In the following, we discuss theory regarding the five entrepreneurial characteristics of main interest. All are considered important entrepreneurial characteristics, and the degree to which an individual possess these qualities can be vital in the survival and growth of a business.

2.1.1 Risk Preferences

The ability to take risk is commonly viewed as an important entrepreneurial trait (e.g Banerjee and Duflo, 2011). In theory, differences in risk preferences can affect entrepreneurial success if insurance markets are missing, for instance due to underinvestment by the most risk averse (de Mel et al., 2007).

In order to understand risk preferences, it is important to define expected return and expected utility. The former is calculated by taking the weighted average of all possible outcomes of an investment. All possible outcomes and their corresponding probabilities are known and the outcomes are weighted in terms of their probability. Expected utility further weighs the different expected outcomes on the basis of the individuals' valuation of the different outcomes when the probability of materialising are taken into consideration. For instance, a risk neutral individual will value a certain return equally whether it is safe, or uncertain. A risk averse individual, however, as most people are, will need to be compensated with increased expected return to prefer an uncertain outcome to a safe outcome, while the opposite is true for a risk seeking individual (Pindyck and Rubinfeld, 2005).

In their study of risk attitudes among nascent entrepreneurs in Germany, Caliendo et al. (2009) found that people with lower risk aversion were more likely to become self-employed. This, however, was only the case when shifting from regular employment. Risk attitude did not play a role when coming out of unemployment or inactivity. In addition, they found an inverse U-shaped relationship between risk attitude and entrepreneurial survival (Caliendo et al., 2010). Entrepreneurs with medium-level risk aversion have a better chance of their business surviving than people with low or high levels of risk aversion. It is therefore natural to assume that for a necessity-driven entrepreneur, though risk is not necessarily an important characteristic for the decision to start a business, risk preferences are of importance in both business survival and growth.

2.1.1 Time Preferences

Time preferences play an important role in economic theories of savings and investment and economic growth (Becker and Mulligan, 1997), and is consequently an important entrepreneurial characteristic. As Banerjee et al. (2010) state, both establishing a business and achieving growth of an enterprise requires patience. Time preferences captures how people make trade-offs between current and future consumption to optimise their utility (Fisher 1930 in Becker and Mulligan, 1997). Such decisions are dependent on how a person discounts the present and the future, i.e. the level of patience. A patient person has low time preference and discounts the present more than the future (Pindyck and Rubinfeld, 2005). Becker and Mulligan (1997) find that wealth causes people to become more patient. In other words, poverty can result in less patience (Banerjee and Duflo, 2011).

2.1.2 Willingness to Compete

Willingness to compete is an important entrepreneurial characteristic for the creation and prevalence of a profitable business (Fisher 1930 in Becker and Mulligan, 1997, Bjorvatn et al., 2012, Berge et al., 2011). In economic theory, willingness to compete is considered a decisive factor in career choice and wage earnings as more competitive positions are often associated with higher wages (Croson and Gneezy, 2009). For an entrepreneur, competition is near inevitable, as most businesses never enjoy monopoly power. For a necessity-driven entrepreneur who enters the market out of necessity, rather than a foreseen market opportunity, competition might be especially profound (e.g. Banerjee and Duflo, 2011).

2.1.3 Performance under Pressure

Ensuring the survival of a small-scale business is challenging for many entrepreneurs (Geroski, 1995). Making the right investments; setting the optimal prices; running the business effectively and sustainably both in relation to the customers, the potential employees and the product(s), are among the tasks an entrepreneur must undertake in order for the business to survive (Pindyck and Rubinfeld, 2005). In economic theory, incentives are seen as an important tool to raise motivation and improve performance. However, a recent paper by Ariely et al. (2009) shows that the increased stimulation brought about by incentives can be destructive beyond an optimal point. They explain this by a phenomenon known as "choking under pressure" (Baumeister, 1984 in Ariely et al., 2009, p. 452). As, per definition, necessity-based entrepreneurs have no other possible means of income, and the pressure to handle the business tasks optimally is inevitably high. Therefore, the increased stimulation caused by the threat of not achieving or sustaining a successful business, could possibly have a destructive effect. Consequently, the ability to perform well in pressured situations is important for entrepreneurial success.

2.1.4 Self-Efficacy

An individual's self-efficacy can impact entrepreneurial characteristics such as attitude towards risk, willingness to compete and performance (Tyszka et al., 2011, Bandura, 1997). Self-efficacy is the beliefs in one's own competence in task attainment, thus it can be perceived as task-related self-confidence. It is partially related to past experiences, but can also be defined based on different perceptions of the specific situations. People who have high self-efficacy will generally perform better than people with low self-efficacy as they will put more effort and determination into their performance (Bandura, 1997).

Chen et al. (1998) studied entrepreneurial self-efficacy (ESE) on students and small business executives. ESE is defined as "the strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship" (p. 295). They found that, among the students, ESE was positively related to entrepreneurial intentionality. By comparing the small business executives to non-entrepreneurial managers, they also found that the former had higher self-efficacy in innovation and risk-taking than the latter. Adding to this, Tyszka et al. (2011) found that self-efficacy was higher among opportunity-driven entrepreneurs compared to necessity-driven entrepreneurs. Self-efficacy does not seem to be an important entrepreneurial characteristic for the decision to start a business for necessity-based entrepreneurs, since they are, per definition, forced into entrepreneurship out of necessity. However, since self-efficacy is linked to entrepreneurial traits such as risk preferences and willingness to compete, it is also likely that self-efficacy is an important characteristic in achieving a successful business, also for necessity-driven entrepreneurs.

It is possible to display overconfidence in one's own abilities. Camerer and Lovallo (1999) explored this in relation to the high rates of business failures by creating games where payoffs were dependent on the skills of the entrant. They found that when payoffs were dependent on personal abilities, individuals overestimate their chances of relative success. Hence, overconfidence can be destructive.

2.2 Social Identity

In this thesis, we explore how the social identity of disability can affect the previously discussed entrepreneurial characteristics among PWDs. This section defines social identity and gives an overview of the theoretical framework of priming, the method used to make the disability-specific social identity salient. Additionally, we discuss the theoretical framework of stereotype threat, and show how it potentially can affect the performance of PWDs.

While personal identity relates to attributes only applicable to a certain individual, social identity theory is used to analyse self-conception within cognitively defined group memberships. Such a group "exists psychologically if three or more people construe and evaluate themselves in terms of shared attributes that distinguish them collectively from other people" (Hogg 2006, p. 111). Thus, members will identify themselves with the in-group members, and distinguish themselves from people who do not belong to their group, the "out-group" members (Hogg 2006). In the literature this process is referred to as self-categorization (Turner et al., 1987 in Hogg, 2006). Norms are defined by what is considered

the appropriate behaviour of the group members, and are taken on as the group identity. The specific traits that are associated with each group are reflected in the stereotypes related to the individual members (Dovidio et al., 2011). As individuals identify with group norms, values and rules, phenomena such as prejudice, discrimination, stereotyping, conformity, group polarization, organisational behaviour and group cohesiveness, can occur. It has been argued that self-enhancement and uncertainty reduction is the main motivation behind social identity, as social identity can act both as a buffer against stigma and reduce uncertainty for the individual (Hogg, 2006).

To what extent an individual identifies with a certain social category depends on the category's subjective importance and its accessibility to the individual, both chronically and situational (Hogg, 2006). Examples of social categories are gender, race, corporate and national identity (McLeish and Oxoby, 2011). The number of social categories to which individuals relate, will also affect their social identities. The different social identities can be salient at any time and the subjective importance of the identities can motivate and affect behaviour (Akerlof and Kranton, 2000). Behaviour is affected because the more the individual associates with the social category, the more disutility is caused when deviating from the given group norms (Benjamin et al., 2010). Shih et al. (1999) found that by activating sociocultural categories, Asian women performed better on mathematical tasks when their ethnicity was made salient, and performed poorer when their gender was made salient, the corresponding stereotype being that Asians have superior quantitative skills compared to other ethnic groups and that women are inferior to men in mathematics.

2.2.1 The Theoretical Framework of Priming

Priming is a social psychological method that has proved useful when studying the norms and perceptions of social categories (Dijksterhuis et al., 2007, Benjamin et al., 2010). The method exploits how even unconscious stimuli of a social category can have a temporary effect on psychological responses such as behaviour and evaluations (Bargh and Chartrand, 2000). The temporary effect which has been shown to last at least 16 minutes (Blascovich et al., 2001), can be passively activated since much of our social behaviour and trait constructs are unconscious and automatic (Dijksterhuis et al., 2007, Bargh, 2006).

Based on the work of Akerlof and Kranton (2000), Benjamin et al. (2010, p. 1914) propose a utility function that captures the way in which social identity and priming influence behaviour. An individual belongs to a social category *C*. In the present study the social

category is disability. The strength of association with the category is given by $s \geq 0$. In the function, x represents a behavioural choice, for example whether to enter into a competition or how many risky choices to make. When exempt any consideration to social category, x_0 represents the individuals preferred behaviour. For members of social category C, x_C, is the prescribed behaviour. The individual chooses x to maximise utility, U:

(2.2a) $$U = -\left[(1 - w(s))(x - x_0)^2\right] - \left[w(s)(x - x_c)^2\right]$$

How the individual weighs the prescribed behaviour of the social category is given by $0 \leq w(s) \leq 1$. The weight increases with s. The first term of the functions describes the increasing disutility of deviating from one's personal preferred behaviour. The second term describes the increasing disutility concerned with deviating from the social norm related to the social category. The terms are squared to give absolute numbers, as deviation should be negative either way. The optimal choice of behaviour, x^*, is given by the first-order condition:

(2.2b) $$x^*(s) = (1 - w(s))x_0 + w(s)x_c,$$

where x^* moves closer to x_C when s increases.

Making a social category salient through priming, where priming, which per definition increases s, is given by $\gamma > 0$, reveals the marginal effect of increasing an individual's association s with category C. This is illustrated by $x^*(s + \gamma) - x^*(s)$. The priming, γ, then, causes the optimal choice of behaviour, x^* in 2.2b, to move closer to x_C. By differentiating 2.2b with respect to s we obtain:

(2.2c) $$\left(\frac{dx^*}{ds}\right)\gamma = w'(s)(x_c - x_0)\gamma,$$

one can see that the direction of the priming treatment is dependent on $x_c - x_0$, the difference between the category-associated behaviour and personal preferred behaviour. This marginal effect on the individuals' psychological responses will tend to tilt toward the norms associated with the primed social category, x_C, because of the disutility associated with deviation from the prescribed behaviour. The marginal effect tends to become larger if the primed category is self-relevant to the primed individual, $s > 0$ (Dijksterhuis et al., 2007, Akerlof and Kranton, 2000).

2.2.2 Stereotype Threat

We hypothesise that there are negative social norms related to the abilities of PWDs, and that these can, for example, impact their performance under pressure. In making negative stereotypes salient, the performance of stigmatized groups or individuals decreases (Schmader et al., 2008). The effect of the priming is then a consequence of stereotype threat. Stereotype threat refers to the confirming of the negative stereotype of the social groups abilities in a particular domain (Stone et al., 1999, Rydell et al., 2010). The discomfort, concern and temporary cognitive deficit the situation creates for the individual members (Schmader et al., 2008, Crocker et al., 1998, Stone et al., 1999) is reflected in the reduced performance. It is likely that the reduced performance is caused by stereotype threat affecting the perceived self-efficacy of the individual. If stereotype threat is present, we would expect a negative effect on performance under pressure when a PWD is primed with the social identity of having a disability.

Research indicates that stereotype threat and lift are more evident in individuals that identify strongly with their social group (Armenta, 2010), corresponding to the strength of the association *s* from the theoretical model of priming.

There is an extensive amount of literature available on stereotype-based expectations and its effect on performance. Hoff and Pandey (2006) conducted an experiment in villages in India investigating the relevance of their caste on the performance outcomes of sixth and seventh grade boys. When caste was not publicly known, the low-caste participants did not perform significantly different from the high-caste participants. However, when caste became publicly known, the low-caste participants performance declined by 20 per cent and a caste gap emerged. These findings indicate that in the case of a discriminatory regime, such as the caste system, the status assigned to the lower caste members will have lasting effects despite the fact that opportunities have been equalized between the two groups. Literature on groups and identity with regards to social exclusion claims that the differentiation between majority and minority groups will always benefit, both materialistically and psychologically, the majority group (Akerlof and Kranton, 2000).

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3 CONTEXT

3.1 Uganda

Uganda is a developing country in East-Africa with a population of 34.5 million. The life expectancy is 54 years for females and 53 for males. Indicators of the low life expectancy are given by the high HIV prevalence of 6.5 per cent and a mortality rate for children under 5 of 99 per 1000 live births. Almost a fourth of the population lives on less than $1.25 a day and the income share held by the highest decile is 36 per cent[4], indicating a large gap between the rich and the poor.

The Ugandan National Household Survey (UNHS) of 2005/2006 (UBOS, 2006) reports that 7 per cent of Ugandans have a disability. This is an estimate of approximately 2.3 million people[5,6]. The actual figures in Uganda could be higher as there is a lot of stigma associated with having a disability. This is probably making many families underreport the number of PWDs in their household, in fear of shame and social exclusion. This stigma might also be a contributing factor as to why 80 per cent of the Ugandan PWDs live under the $1.25 a day poverty line, resulting in every fourth poor Ugandan being a person with a disability.[7]

In spite of these striking figures, Uganda is considered a pioneer country in Africa in terms of increasing civil rights for PWDs.[8] Much of this is due to the work of The National Union of Disabled Persons of Uganda (NUDIPU). This is an umbrella organisation working to secure the rights and the participation of PWDs in development programs. Since the start-up in 1987, NUDIPU's work has included economic empowerment by making microfinance available, mainstreaming disability issues in HIV/AIDS programmes and awareness creation through policy implementation.[9] Although much has been done, PWDs still face discrimination and exclusion, especially in local communities.[10] The Norwegian Association of Disabled (NAD) collaborates with NUDIPU and gives financial support to many of its

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[4] All statistics from: http://data.worldbank.org/country/uganda (accessed 17.04. 2012)
[5] http://www.nhf.no/index.asp?mal=3&id=73459 (accessed 17.04.2012)
[6] This figure is lower than comparable countries such as Malawi and Zambia that have disability figures equalling 10 per cent (http://www.nhf.no/index.asp?mal=1400&id=70749 and http://www.nhf.no/index.asp?mal=3&id=73442 (accessed 20.06.2012))
[7] http://www.nhf.no/index.asp?mal=3&id=73459 (accessed 17.04.2012)
[8] http://www.nhf.no/index.asp?mal=3&id=73457 (accessed 17.04.2012)
[9] http://www.nudipu.org.ug/index.php (accessed 18.04.2012)
[10] http://www.nhf.no/index.asp?mal=3&id=73459 (accessed 17.04.2012)

projects; particularly those linked to the inclusion of PWDs in savings and microfinance programmes to increase the economic empowerment of PWDs[11].

3.2 The District of Tororo

The District of Tororo borders Kenya in Eastern Uganda. The main municipal, administrative and commercial centre of the district is the town of Tororo. The estimated population of Tororo District was 450 000 in 2009 (UBOS, 2009), and in Tororo town the 2010 estimate was 44 000[12]. The UNHS 2005/2006 (UBOS, 2006) reported that 15.4 per cent of the population lived in urban areas and 84.6 per cent in rural areas. The 2002 Population and Household Census (UBOS, 2002) reported that the majority of the Ugandan working population, 71 per cent, were involved in subsistence farming.[13] In the rural areas, 80 per were involved in subsistence farming in contrast to only 12 per cent in the urban areas.

The vast majority of PWDs in Uganda live in rural areas. However, in contrast to the already low countrywide estimate of 7 per cent (UBOS, 2006), the number of registered PWDs in Tororo District in 2003-2004 was 6499 (Claussen et al., 2005). This equals only 1.2 per cent of the population of Tororo, and it is predicted that over 50 per cent of PWDs have not been registered in the district (Claussen et al., 2005). This could indicate a particularly high degree of social stigma of PWDs in Tororo or it could stem from the fact that there are a lot fewer PWDs in this region compared to the national average.

In any case, Tororo is one of few districts in Uganda that has, since 2002/2003, implemented the community-based rehabilitation (CBR) program with financial support from NAD and the guidance of NUDIPU.

"CBR is defined as a strategy within general community development for rehabilitation, equalization of opportunities and social inclusion of all children and adults with disabilities. CBR is implemented through the combined effort of people with disabilities themselves, their families and communities and the appropriate health, educational, vocational and social services."

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[11] http://www.nhf.no/index.asp?mal=3&id=73457 (accessed 17.04.2012)
[12] http://www.ubos.org/onlinefiles/uploads/ubos/pdf%20documents/TP52010.pdf (accessed 18.04.2012)
[13] Subsistence farming is mostly small scale and for own consumption (UBOS, 2002).

The main vision for the CBR program is to achieve full integration of PWDs into the community, thus equalizing opportunities and services. To achieve this in Tororo, trained volunteers work for free to increase public awareness by sensitizing local communities and families. In addition they can help provide appropriate devices and assist in referrals that include health and education.[14] NAD reports that the program has increased awareness of the rights of PWDs among the group, and also access to schooling among youth with disabilities has increased.[15]

3.3 The School System

The Ugandan school system is similar to the British with seven years of primary school (P1-P7), six years of secondary school, and higher education either at university or other types of tertiary education. At secondary school the students first complete four years of O-levels (S1-S4), unless they proceed straight to Vocational School. After O-levels the students progress to A-levels (S5-S6). At this level students can also proceed to Primary Teachers College (Year1 -Year 2) or Vocational School.[16]

Students with disabilities drop out extensively throughout secondary school, but the enrolment rates are increasing (UBOS, 2009). Calculations from school enrolment rates of students with special needs and general enrolment figures, both in secondary school, show that students with disabilities account for 1.3 per cent of the total enrolment in 2008 (UBOS, 2009).[17] Of current school age children (6-24), 15 per cent of the PWDs have never attended school compared to 6 per cent of the non-PWDs (UBOS, 2006). The proportion of PWDs that have not completed any level of schooling is four times as high as for the average population, and it affects girls with disabilities to a much larger extent than boys with disabilities. The lack of education results in the exclusion of PWDs in government programs to combat poverty as more than 60 per cent have never been enrolled in such programs.[18] Children from the poorest 20 per cent are twice as likely to drop out as the children from the wealthiest households (UNESCO, 2011). Considering that PWDs are more prone to poverty, it implies that these figures can be linked to their high dropout rates.

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[14] Brochure informing about the CBR program, printed by the Ministry of Gender, Labour and Social Development for the Department of Disability and Elderly.
[15] http://www.nhf.no/index.asp?mal=3&id=73459 (accessed 17.04.2012)
[16] Conversation with Yona Gamusi Doya, District Education Officer, Tororo, 15.04.2012 and
http://www.guardian.co.uk/katine/2010/feb/08/education-system-explainer (accessed 14.04.2012).
[17] Calculations from: Table 2.2 E and Table 2.2.8
[18] http://www.nhf.no/index.asp?mal=3&id=73459 (accessed 17.04. 2012)

Secondary school completion rates in Uganda are very dependent on location. People aged 23 to 27 in Uganda living in urban areas are more than five times as likely to have completed secondary school than its rural counterpart. In addition the rural poor are not likely to complete secondary school at all (UNESCO, 2011).

4 METHODS

4.1 Experimental Economics: Laboratory Experiment

Economics was traditionally viewed as a non-experimental science. However, experimental economics; laboratory- and field experiments of individual or group behaviour (List and Reiley, 2008), has proved useful in testing economic theories and the field has become well-established (The Royal Swedish Academy of Sciences, 2002). While field experiments are carried out in natural environments (List and Reiley, 2008) where the participants have economic interaction and make economic decisions, laboratory experiments are carried out in strictly controlled situations and can only mimic real life situations (The Royal Swedish Academy of Sciences, 2002). Still, laboratory experiments enable economists to explore how people make economic and moral choices by enabling controlled variation in the variables of interest (Bjorvatn et al., 2012). This is done by creating a controlled environment; an identical, neutral and standardised experimental setting where nothing but the variable of interest varies (Falk and Heckman, 2009). The controlled environment minimises the risk that external conditions, such as the interview situation, can affect the data and enable the researchers to test causal hypotheses and establish potential causal relations (Guala, 2005).

4.2 Randomised Controlled Trial

The objective of the study is to identify the potential behavioural effects of treatment on risk and time preferences, willingness to compete, performance under pressure, self-efficacy and stereotype. Our treatment was to make the social identity of PWDs unconsciously salient to the participants through priming. When it comes to measuring the effect of a treatment, randomised controlled trials (RCTs) are by many viewed as the 'gold standard' (Drageset and Ellingsen, 2009). This is due to the defining element of an RCT; the random division of participants into two groups; one group receiving treatment and one control group receiving a placebo. If the division is in fact at random, then the two groups should be alike when it comes to both observable and unobservable characteristics. If the experiment is also carried out in a perfectly controlled environment, then the two groups, given that they are large enough, should be equal on every dimension that might influence the results. The difference in results between the two groups is then the causal treatment effect, and problems of endogeneity should be circumvented (Drageset and Ellingsen, 2009).

To provide a more formal exposition of the idea of an RCT, we introduce the framework of Deaton (2010, p. 438-439) and Angrist and Pischke (2008, p. 13-15). An individual, i, in the population under study, is randomly assigned to either treatment, $T_i = 1$, or control, $T_i = 0$. The outcome of getting treatment is Y_{i1}, and the outcome of not getting it is Y_{i0}. The goal of the method is to identify the treatment effect, $Y_{i1} - Y_{i0}$. However, we can only observe Y_{i1} *or* Y_{i0} as i is randomly assigned to *either* treatment or control. Therefore, we will only obtain the average difference between the average outcomes of treatment and control in the data, given by:

(4.2a)
$$E(Y_{i1}|T_i = 1) - E(Y_{i0}|T_i = 0)$$

This difference can be reformulated as follows:

(4.2b)
$$[E(Y_{i1}|T_i = 1) - E(Y_{i0}|T_i = 1)]$$
$$+ [E(Y_{i0}|T_i = 1) - E(Y_{i0}|T_i = 0)]$$

The term in the first square bracket describes the difference we would find if we could obtain both the outcome of treatment and control for a single group, i.e. the causal effect of treatment. This is not possible. However, with random assignment of individuals to treatment and control, the term in the second square bracket will add up to zero because the randomisation makes the two groups identical in all aspects except for treatment differences. Without random assignment, a selection bias can arise if the individuals who choose treatment vary systematically from those who choose non-treatment. With randomisation however, we expect to find the same non-treatment outcome for both the control and the treatment group. Thus, we get the following:

(4.2c)
$$E(Y_{i1}|T_i = 1) - E(Y_{i0}|T_i = 0)$$
$$= [E(Y_{i1}|T_i = 1) - E(Y_{i0}|T_i = 1)]$$

This shows that the observed average difference in the outcome of the treatment and the control group is equal to the counterfactual difference of the observable outcomes. Equation (4.2c) can be rewritten:

(4.2d)
$$E(Y_{i1}|T_i = 1) - E(Y_{i0}|T_i = 0)$$

$$= E(Y_{i1} - Y_{i0} | \mathbf{T}_i = \mathbf{1})$$

The difference in means between the treatment and the control group gives the average impact of the treatment. Since the two groups are identical due to randomisation, the treatment effect can be seen as the estimated treatment effect for all. The latter term is purely hypothetical, but as we see, through randomisation, this counterfactual definition of causality can be observed in the data.

4.3 Participants

4.3.1 Recruitment Procedure

We recruited participants in close cooperation with the District Education Officer in Tororo. Together we formulated a written invitation to all 36 secondary schools in the district, including private and government run boarding and non-boarding schools. The schools were invited to let some of their 15-25 year old O-level students participate in a 'research project on youth and entrepreneurship'. Local assistants handed out the invitations to the head teachers, requesting them to appoint both students with and without disabilities for participation. The head teachers and the assistants were asked not to talk of the request for PWDs in front of the students and were informed that the results would not be used in any form of ranking of the schools.

Our target was to mobilise a gender-balanced group of 400 students, two-thirds of them non-PWDs and one third with physical disabilities and/or hearing impairments. In each session, we planned to have students from at least three different schools both among the PWDs and the non-PWDs. Exclusion criteria were blindness and mental impairment. In addition, deaf students without sufficient reading/ writing- and sign language skills were excluded. These exclusions were mainly for practical reasons, as many of these students would require relatively much assistance and time. Schools without students with disabilities were also excluded due to logistics in terms of transportation.

4.3.2 Background Characteristics

All of the secondary schools in Tororo were willing to release students to participate in the project. Two schools were excluded because they, according to their head teachers, did not have any students with disabilities. A total of 351 students from 34 secondary schools were recruited (one of them a vocational school). We had to supplement with students from other

school levels to reach our target number and mobilised 26 students from the upper four levels of a primary school, and 22 students from a teachers college (equalling A-levels). These two schools were invited to participate on different days to minimise the knowledge and age gap among the participants in each session. In total, we recruited 399 students in the age bracket 12-30 with a median and an average age of 17 years. Of these, 244 (61 %) were defined as non-PWDs while 155 (39 %) either had a physical disability or a visual or hearing impairment.

The classification of PWDs was based on a combination of the participants' own subjective perception, the researchers' definition of disability and the reports from the teachers: The participants' replied to a background question: *Do you have a disability?* The participants who reported to have a disability were then asked to specify the type. We used these specifications to see whether the participants' definition of disability matched that of the researchers. For example, participants who specified their disability as "not enough money for school fees" were defined as non-PWDs. Also, whenever the accompanying teachers viewed the participant as non-PWDs while the participant reported what we consider minor impairments, such as "somehow not hearing well", "sometimes not hearing well" and "one eye doesn't work completely", "sight problem", "eye problem" or "not hearing well", the participant were recorded as non-PWDs.[19] If these teachers were or seemed in doubt of their students' disability status, we contacted the school for clarifications.

Table 4-1 gives an overview of the descriptive statistics according to disability status. Column (1) presents averages for the entire sample, column (2) for the PWDs, column (3) for the non-PWDs, and column (4) presents the differences between the non-PWDs and PWDs. All of the characteristics are based on self-reported data given by the participants in a background questionnaire at the end of the experiment.

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[19] The results remain largely robust whether we include these participants as PWDs or non-PWDs.

Table 4 - 1: Background Variables by Disability Status

	(1) Full sample	(2) PWDs	(3) Non-PWDs	(4) Difference
Female	0.50	0.40	0.56	-0.16***
	(0.025)	(0.039)	(0.032)	(0.051)
Age	17.1	17.2	17.1	0.083
	(0.12)	(0.23)	(0.13)	(0.24)
School level	2.09	2.06	2.10	-0.044
	(0.028)	(0.048)	(0.035)	(0.058)
Livingwith1	0.54	0.51	0.57	-0.056
	(0.025)	(0.040)	(0.032)	(0.051)
Livingwith2	0.30	0.32	0.29	0.029
	(0.023)	(0.037)	(0.029)	(0.047)
TV	0.26	0.24	0.27	-0.032
	(0.022)	(0.034)	(0.028)	(0.045)
Computer	0.053	0.032	0.066	-0.033
	(0.011)	(0.014)	(0.016)	(0.023)
Servants	0.45	0.41	0.48	-0.063
	(0.062)	(0.099)	(0.080)	(0.13)
Meat	1.73	1.68	1.75	-0.070
	(0.065)	(0.098)	(0.086)	(0.13)
News	0.52	0.46	0.56	-0.093*
	(0.025)	(0.040)	(0.032)	(0.051)
Government employee	0.21	0.16	0.24	-0.076*
	(0.020)	(0.030)	(0.027)	(0.042)
Private sector employee	0.11	0.097	0.11	-0.014
	(0.015)	(0.024)	(0.020)	(0.032)
Peasant	0.48	0.52	0.46	0.064
	(0.025)	(0.040)	(0.032)	(0.051)
Own business	0.19	0.21	0.18	0.033
	(0.020)	(0.033)	(0.025)	(0.041)
Rural	0.58	0.54	0.61	-0.069
	(0.025)	(0.040)	(0.031)	(0.051)
N	399	155	244	399

Note: Column (1), (2) and (3) reports the average values of different background variables for the full sample, the PWDs, and the non-PWDs, respectively. Column (4) reports the differences between the PWDs and the non-PWDs. Female is a dummy that takes the value 1 if the participant is female. Age reports the age of the participant in number of years. School level takes the value 1 if the participants are in primary, 2 if they are doing their O-levels, 3 if they are in a vocational school, and 4 if they are doing their A-levels. Living with both parents and living with one parent are both dummies taking the value 1 if the participant is living with both parents or one parent, respectively. TV and computer are dummies taking the value 1 if the participant has a TV or a computer at home, respectively. Servants reports the number of servants in the participant's home. Meat is the number of times the participant eats meat a week. News is a dummy taking the value 1 if the participant's household head reads the newspaper. Government employee, private sector employee, peasant and own business are all dummies taken the value 1 if the participant's household head works in the respective occupation. Rural is a dummy that takes the value 1 if the participant attends school in one of the villages in Tororo, as opposed to one of the town schools. Standard deviations in parentheses in column (1), (2), and (3). Standard errors in parentheses in column (4); *p<0.10, **p<0.05, ***p<0.01.

4.3.2.1 Age, School Level and Gender

We asked the participants their age, gender and school level. *Age* reports the participants' age, *gender* is a dummy that takes the value 1 if the participant is female and *school level* takes the value 1 if the participants are in primary, 2 if they are doing their O-levels, 3 if they are in a vocational school, and 4 if they are doing their A-levels. We observe that the mean participant is a 17-year-old O-level student and that there are not any economically or statistically significant differences in age or school level between the PWDs and the non-PWDs in the sample. While the sample as a whole is gender balanced (50 per cent females), only 40 per cent of the PWDs in the sample are female (Table 4-1). Consequently, there is a majority of males among the PWDs and a majority of females among the non-PWDs.

4.3.2.2 Economic Status

Economic status was measured by having the participants state the occupation of the household head: *A government employee, a private sector employee, a business owner, a peasant* (defined as a small-scale farmer) or *another occupation*. Dummies were created for each of the occupations, taking the value 1 if the household head were employed in the respective occupation. The average government and private sector employee earns about six times as much as the average person in Africa (Schiavo-Campo and Jackson, 1999). This indicates that having a household head that is a public or a private sector employee increases the chance of the participant living in a home with an above average economic status. 48 per cent of the participants reported that their household head worked as a peasant. 21 per cent had a household head that worked for the government, 19 per cent of the household heads had their own business while almost all of the remaining participants (11 per cent) had a household head working in the private sector. There were only two economically significant differences between the PWDs and the non-PWDs. Among the PWDs there were 7.6 per cent fewer household heads working in the government, a statistically significant difference at a 10 per cent level. Among the PWDs there were 6.4 per cent more participants with household heads working as peasants (Table 4-1). Since government employees on average earn more than peasants, it seems the PWDs come from homes with a somewhat lower economic status than the non-PWDs.

To further measure economic status, we asked the participants for the number of servants they had at home, whether they had a TV or a computer and how many times a week they on average ate meat. *Servants* is the number of servants in the home (this includes people who

are employed to work on the family land). *Meat* is the number of times the participants ate meat per week and *TV* and *computer* are dummies that take the value 1 if the participant reported having a TV or a computer, respectively. Only 26 per cent reported having a TV at home, 5.3 per cent had a computer and the average participants ate meat almost twice a week (1.73). The sample as a whole also reported an average of 0.45 servants at home, the median participant having none. The data suggests no economically or statistically significant differences between the PWDs and the non-PWDs along the measures presented (Table 4-1).

4.3.2.3 Stability and the Home

We measured stability in the home by asking the participants whether they lived with both parents, one parent or none. A dummy was made for each of these family situations, taking the value 1 if the respective family situation was the case for the participant. There were no economically or statistically significant differences between the PWDs and the non-PWDs and both groups varied little from the full sample where 54 per cent of the participants lived with both parents (Table 4-1).

4.3.2.4 Socio-Economic Background

Reading the news can be considered a proxy for socio-economic background, for instance indicating literacy and/or education level. We therefore asked the participants if their household head read the newspaper and we created a dummy that took the value 1 if the participant confirmed this. We observe that around 10 per cent fewer of the PWDs' household heads read the news compared to the household heads of the non-PWDs. This difference is significant at a 10 per cent level (Table 4-1), and it suggests that the PWDs may come from somewhat lower socio-economic backgrounds.

Being from the villages or the town of Tororo can also be seen as a proxy for socio-economic background as the schools, for instance, are of better quality in the town areas compared to the more rural parts of the district.[20] We find that slightly more than half of our participants (58 per cent) are from the rural areas. Our results also indicate that the share of the non-PWDs in our sample attending school in rural areas is smaller than the share of the

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[20] Measured by comparing the average grades of the students from the town schools and the more rural schools (from official numbers prepared for the District Education Officer in Tororo, 2012).

PWDs attending school outside of Tororo town. The difference however, is not statistically significant.

4.3.2.5 Summing up the Differences between the PWDs and the Non-PWDs

The imbalances between the PWDs and the non-PWDs should translate to both the treatment and the control group due to the randomisation (Blance et al., 2007). Therefore, the priming effects on PWDs, the main focus of this study, should not be affected by these fundamental differences as we compare non-primed and primed *PWDs*, randomly divided to treatment and control (Austin et al., 2009). The treatment-control balance in section 4.5 gives an indication to whether the randomisation has been successful. However, as we also compare the responses of the PWDs and the non-PWDs in the control group in addition to analysing the within-group treatment effects, the observable background characteristics are highly important. The characteristics give an indication of the fundamental differences between the PWDs and the non-PWDs in the sample. PWDs in Uganda and Tororo rarely attend school, especially at such high levels.[21] Therefore, due to this biased selection of PWDs, there might be fundamental differences between the PWDs and the non-PWDs in our sample.

We find statistically significant differences along three dimensions: There are more females among the non-PWDs compared to the PWDs, and there are more non-PWDs than PWDs with household heads who are employed by the government. Additionally, fewer PWDs than non-PWDs had household heads that read the news. The two latter differences suggest that the non-PWDs in the sample come from more resourceful families with a higher socio-economic background than the PWDs. We control for these differences when we compare PWDs and non-PWDs in the control group, but it is important to keep in mind that there might still be fundamental differences between the two groups on unobserved characteristics of which we cannot control for.

4.4 The Laboratory Experiment

4.4.1 Structure of the Lab

Table 4-2 gives an overview of the laboratory experiment. The experiment was extensive, so we focus on explaining the relevant tasks for this study: The priming instruments, the risk

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[21] UNHS 2005/2006 (UBOS, 2006) and conversation with Moses Moiza, District Rehabilitation Officer, Tororo, 05.04.2012.

measure, the multiple-choice questions, the participants' beliefs, their competition choice, and the measure of time preferences. The instructions and the mentioned tasks are presented in full in appendix A2 and A3. The participants were handed one task at a time, and received additional pre-written instructions from a moderator. They were encouraged to raise their hand and inquire the assistants of any uncertainties.

Table 4 - 2: Structure of the Lab

Part 1

Entrepreneurship (priming/ non-priming)
Risk
Dictator Game (altruism)

Part 2

Multiple-Choice Questions 1 (MCQ1)
School and Leisure (priming/ non-priming)
Beliefs 1 and Competition Choice
Spectator Game (fairness)
Multiple-Choice Questions 2 (MCQ2)

Part 3

Send Money? (Trust game)
Return Money? (Trust game)

Part 4

Language Exercise (priming/ non-priming)
Multiple-Choice Questions 3 (MCQ3)
Time Choice
Beliefs 2

Part 5

Career Choice
Background Information

4.4.2 Instruments

4.4.2.1 Priming

The participants assigned to treatment were primed with the social identity of having a disability on three different occasions (Table 4-2). We used two manipulated "background questionnaires" (Benjamin et al., 2010, Shih et al., 1999) and a "Scrambled Sentence Test"

(Bargh et al., 1996), all of them constructed to make a social identity salient. The questionnaires were masked as background questionnaires on entrepreneurship and school and leisure to obtain an unconsciously primed treatment group. The questionnaires included both neutral questions such as *Does your father/guardian own a business?,* and questions linked to disability; *Is there some kind of work or business that you would not be able to do?*. Those who were not primed, i.e. the control group, received the same types of tasks, only with social identity-neutral questions such as *Who is the most famous Ugandan business person?*. The participants had a time limit of six minutes on each of the "background questionnaires".

The "Scrambled Sentence Test" was presented to the participants as a test of language ability. It consisted of 15 sets of words, and the participants were asked to construct sentences with four out of the five words that made up each set. For instance, one set of words was: *mud lot a carpet of.* The participants were to form a meaningful sentence with four of these words, for instance: *a lot of mud.* The treatment group received both sets of words that could be linked to disability, such as *deaf song from birth was*, and sets of disability-neutral words, such as; *shining was car sun the.* The participants had six minutes to complete the task. The non-primed answered a "Scrambled Sentence Test" with social identity-neutral words and questions.

4.4.2.2 Risk Preferences

We measured attitude to risk by asking the participants, in three different cases, to choose between a guaranteed 2000 Ush or a gamble with an X per cent chance of winning 4000 Ush. The probability of winning the gamble varied between 25 per cent, 50 per cent and 75 per cent in the three cases. The participants were informed that one of the cases would be randomly chosen to determine their payments. This is a standard way of measuring risk, and a very similar approach has been employed in a laboratory experimental in Tanzania (Berge et al., 2011). The number of times the participants chose a risky alternative is presented in Figure 4-1. We observe that the average participant chose the risky alternative in one out of three cases, indicating that the majority of the sample was risk averse.

Figure 4 - 1: Risk Preferences
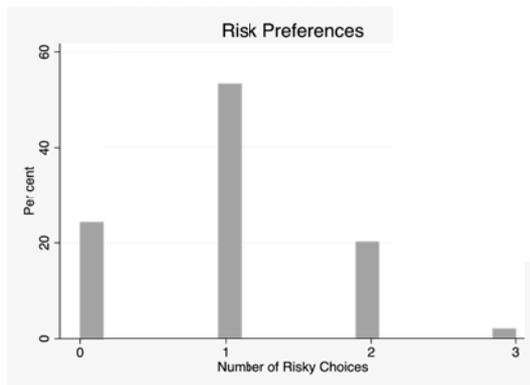
4.4.2.3 Performance under Pressure

The experiment included three ten-minute sets of multiple-choice questions. These were, among others, designed to measure performance under pressure. Each of them contained ten questions regarding health, nutrition, mathematics, geography, science and sports. Every question had four possible answers, one of them being the correct one. For instance, one question was: *Which is the largest continent measured by size?* The possible answers were: *Africa, North America, Asia and South America.* In the first set of multiple-choice questions (MCQ1), the participants were paid 200 Ush for each correct answer. In the third set (MCQ3), they earned 500 Ush per correct answer if the performed at least as good as an average in the MCQ1 and nothing if they performed below average.[22] This method, and these questions, although somewhat adjusted for Tororo, has been used in a study on training and entrepreneurship in Tanzania (Berge et al., 2011).

The number of correct answers in MCQ1 and MCQ3 is presented in Figure 4-2 and Figure 4-3, respectively. We observe that the distribution of the number of correct answers peaks at six in MCQ1, and four in MCQ3.

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[22] The payment scheme of MCQ2 is explained in section 4.4.2.4.

Figure 4 - 2: MCQ1, Safe Rate   **Figure 4 - 3: MCQ3, Competition Rate**
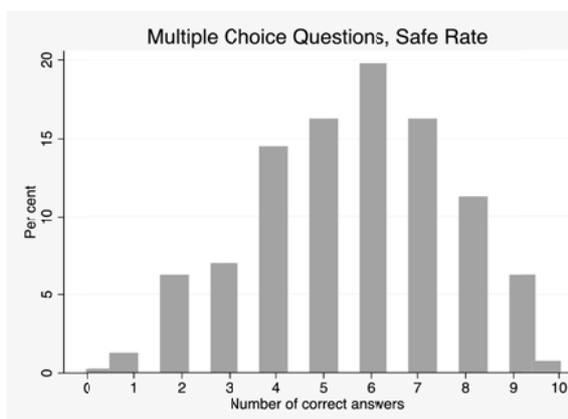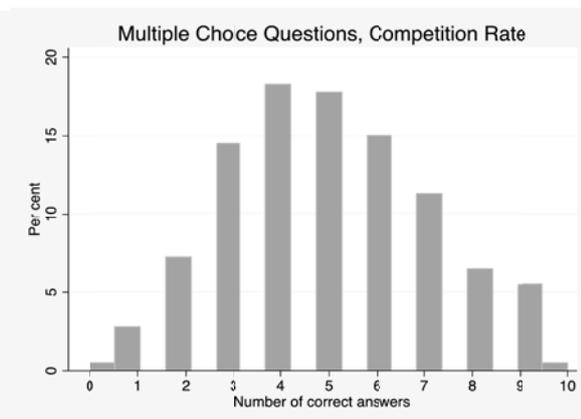
4.4.2.4 Willingness to Compete

We measured willingness to compete in a similar way to that of Berge et al. (2011). We asked the participants to choose between two alternative payment schemes for MCQ2. They could either choose a fixed rate of 200 Ush per correct answer, or enter into a competition where they would get 500 Ush if they performed at least as good as an average in MCQ1, and otherwise nothing. The participants' competition choice is presented in Figure 4-4. We observe that almost 30 per cent of the participants chose to compete.

Figure 4 - 4: Willingness to Compete
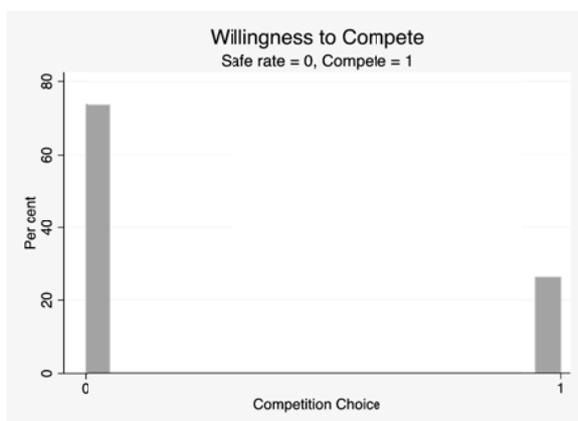
4.4.2.5 Time Preferences

Time preference refers to the preference for early utility over delayed utility, and can be studied by generating a measure of patience (Frederick et al., 2002). We generated such a measure by having the participants imagine they could choose between receiving 1000 Ush in one week and 3000 Ush in five weeks. The participants choosing the earlier, but smaller amount would then be regarded as being less patient, i.e. having a higher time preference compared to the one's choosing the later, larger amount. This is a similar approach to the one

carried out in a study by Berge et al. (2011). The participants' choice of whether to receive the early and the late payment is presented in Figure 4-5. We observe that almost 60 per cent chose the early payment.

Figure 4 - 5: Time Preferences
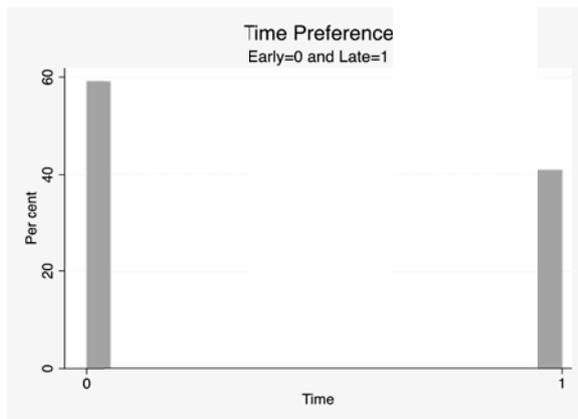
4.4.2.5 Self-Efficacy

We measured self-efficacy by studying the presence of overconfidence among the participants. Overconfidence was measured by overestimation and overplacement, similar to that of (Moore and Healy, 2008). We asked the participants to indicate how many correct answers they think they got right in the first round of multiple-choice questions (MCQ1), i.e. their beliefs about their own performance. Comparing this to their actual performance in MCQ1 gave us an estimate for overestimation. The participants were also asked to state how many correct answers they believed the other participants in the session got right in MCQ1, i.e. their beliefs about others' performance. These beliefs were compared to their actual performance, producing an estimate for overplacement. To ensure that the participants reported their best estimate, they were told they would earn a reward of 1000 Ush for each correct guess.

We observe that most participants believed they got around seven or eight correct answers on MCQ1 (Figure 4-6). Their beliefs about others' performance was a bit more scattered, but most participants believed that the other participants in the session got around five to eight correct answers (Figure 4-7).

Figure 4 - 6: Beliefs own Performance, MCQ1   **Figure 4 - 7: Beliefs others Performance, MCQ1**
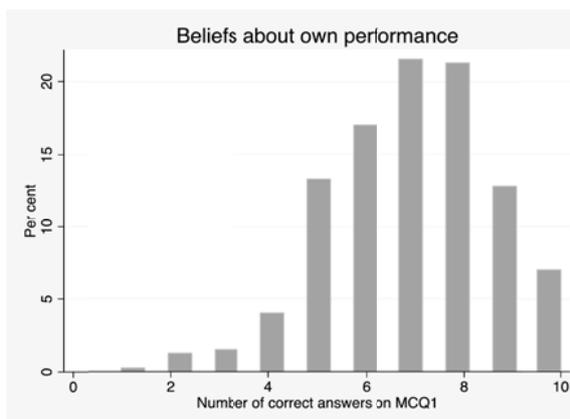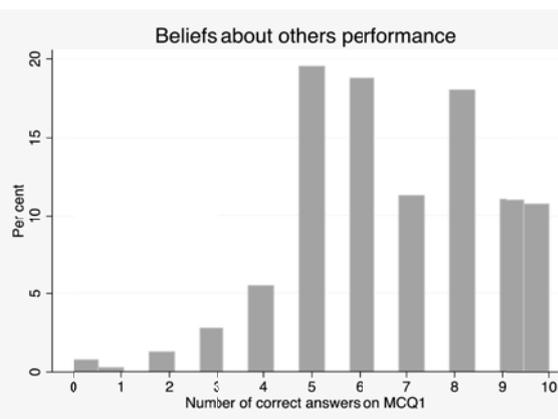
4.4.2.6 Stereotype

Stereotype was measured by asking the participants to indicate how many correct answers they believed the *people with disabilities* and the *people without disabilities* in the session got right on the third round of multiple-choice questions (MCQ3). The participants' guesses of the PWDs' and the non-PWD' performance, are presented in Figure 4-8 and 4-9, respectively. We observe that almost 30 per cent of the participants believed that the PWDs answered five questions correct and that over 25 per cent believed that the non-PWDs got eight correct answers.

Figure 4 - 8: Beliefs PWDs' Performance, MCQ3   Figure 4 - 9: Beliefs Non-PWDs' Performance, MCQ3
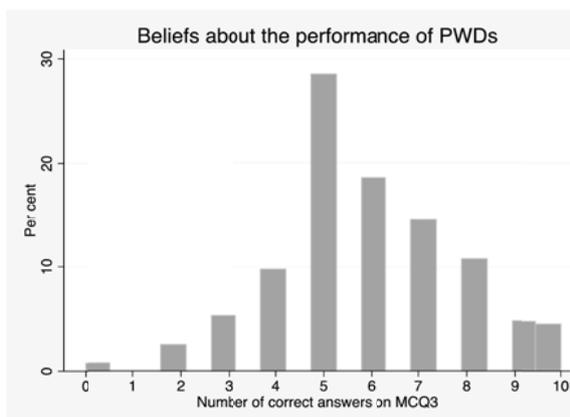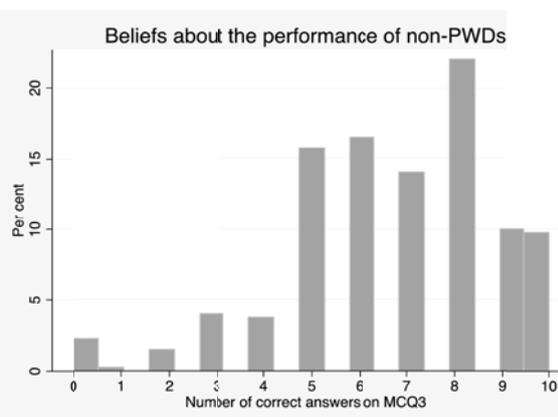
4.4.3 Implementation

We conducted ten laboratory sessions over a period of two weeks in February/March 2012 in the district of Tororo. A pilot was carried out a few days prior to the experiment. We had all the participants undertake the experiment in the same designated location; a conference room

where they all had their own, randomly allocated, desk in order to avoid interaction. [23] Only designated staff, of which there were no PWDs, were allowed to enter the conference room during the sessions.

We randomised the participants to treatment and control by having every other session assigned to treatment, leaving the remaining half of the sessions to control.[24] Those in charge of allocating participants to the different sessions were unaware of the randomisation procedure, i.e. they were masked. It is worth noting that, among the participants in the sample, two groups stood out; a group of primary school students, and participants from a teachers' college. Therefore, we had these two schools release a similar number of participants to two following sessions (in effect one session with treatment and one without). In addition, for practical reasons and also to minimise reputational effects, we invited the village schools to participate in the earlier sessions, moving closer to town as the sessions progressed. Participants from town schools or schools that sent participants for more than one session signed contracts where they vowed not to discuss the contents of the experiment with their friends and fellow students.

4.5 Treatment-Control Balance

In order to find a causal effect, the random division of the full sample into a treatment and a control group is essential (Drageset and Ellingsen, 2009). One should therefore be aware if there are significant differences along any of the observable background characteristics between the two groups, as this indicates a defective randomisation (Blance et al., 2007). Table 4-3 gives an overview of descriptive statistics for the background characteristics according to treatment status. Column (1) presents the averages from the treatment group, column (2) presents the averages from the control group, and column (3) presents the differences between the treatment and the control group. Overall, Table 4-3 shows that the randomisation produced treatment and control groups that are identical on the observable background variables.

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[23] Each participant drew a number from a non-see-through bag when registering, and was escorted to the correspondingly numbered desk.

[24] The premise for our analysis is that the students entering the different schools do not differ systematically, a necessary condition if we are to analyse the data as if we the randomisation process was on an individual level.

<div align="center">

Table 4 - 3: Treatment-Control Balance

</div>

	(1) Priming	(2) Non-priming	(3) Difference
Female	0.51	0.57	0.018
	(0.50)	(0.50)	(0.050)
Age	17.0	17.0	-0.19
	(2.23)	(2.00)	(0.24)
School Year	2.05	2.02	-0.079
	(0.52)	(0.40)	(0.057)
Living with both parents	0.53	0.56	-0.022
	(0.50)	(0.50)	(0.050)
Living with only one parent	0.31	0.29	0.017
	(0.46)	(0.46)	(0.046)
TV	0.25	0.24	-0.024
	(0.43)	(0.43)	(0.044)
Computer	0.065	0.083	0.025
	(0.25)	(0.28)	(0.022)
Servants	0.50	0.53	0.10
	(1.32)	(1.42)	(0.12)
Meat	1.65	1.74	-0.15
	(1.28)	(1.42)	(0.13)
News	0.55	0.57	0.055
	(0.50)	(0.50)	(0.050)
Government employee	0.21	0.21	-0.004
	(0.41)	(0.41)	(0.041)
Private sector employee	0.12	0.12	0.031
	(0.33)	(0.33)	(0.031)
Peasant	0.46	0.46	-0.043
	(0.50)	(0.50)	(0.050)
Own business	0.21	0.21	0.036
	(0.41)	(0.41)	(0.040)
Rural	0.60	0.62	0.038
	(0.49)	(0.49)	(0.049)
N	199	120	120

Note: Column (1) and (2) reports the average values of different background variables treatment group, and the control group, respectively. Column (3) reports the differences between the primed and the non-primed. Female is a dummy that takes the value 1 if the participant is female. Age reports the age of the participant in number of years. School Year takes the value 1 if the participants are in primary, 2 if they are doing their O-levels, 3 if they are in a vocational school, and 4 if they are doing their A-levels. Living with both parents and living with one parent are both dummies taking the value 1 if the participant is living with both parents or one parent, respectively. TV and Computer are dummies taking the value 1 if the participant has a TV or a computer at home, respectively. Servants reports the number of servants in the participant's home. Meat is the number of times the participant eats meat a week. News is a dummy that takes the value 1 if the participant's household head reads the news. Government employee, private sector employee, peasant and own business are all dummies taken the value 1 if the participant's household head works in the respective occupation. Rural is a dummy that takes the value 1 if the participant attends school in one of the villages in Tororo, as opposed to one of the town schools. Standard deviations in parentheses in column (1) and (2). Standard errors in parentheses in column (3); *p<0.10, **p<0.05, ***p<0.01.

4.6 Analysis

We used the method of Ordinary Least Squares (OLS) to identify possible treatment effects, i.e. the causal impacts on behaviours linked to our variables of interest; risk- and time preferences, willingness to compete, performance under pressure, self-efficacy and stereotype of abilities. We consider both a restricted regression, (v), with only treatment and disability status (also including non-PWDs) and an unrestricted regression, (vi), where we included covariates[25]:

$$(4.6a) \quad y_i = \beta_0 + \beta_1(\text{Priming}) + \beta_2(Non-PWD) + \beta_3(\text{Non-PWD*Priming}) + \varepsilon_i$$

$$(4.6b) \quad \begin{aligned} y_i &= \beta_0 + \beta_1(\text{Priming})_i + \beta_2(Non-PWD)_i + \beta_3(\text{Non-PWD*Priming})_i \\ &+ \sum_j \theta_j X_{ij} + \sum_j \phi_j X_{ij} \times (\text{PWD})_i + \varepsilon_i \end{aligned}$$

In both regressions, y is the dependent variable, and represent the number of risky choices, or the competition choice etc. of participant i. *Priming* is a dummy that takes the value 1 if the participant is primed and 0 if not. *Non-PWD* is a dummy for disability, taking the value 1 if the participant is a non-PWD, and 0 if not. *Non-PWD*Priming* is an interaction variable, taking the value of 1 if the participant is both primed and a non-PWD and 0 if not. ε_i is an error term. In regression (4.6b), we include covariates to control for differences in observed background characteristics ($\sum_j \theta_j X_{ij}$) to get increased statistical power (Wooldridge, 2009, Blance et al., 2007). The background characteristics are based on information from our background questionnaire where the participants were asked their gender, if they have a TV at home etc.[26] In order to control for any difference in effect these control variables might have on PWDs and non-PWDs, we consider interaction terms of all the covariates, $\sum_j \phi_j X_{ij} \times (\text{PWD})_i$ (Wooldridge, 2009). Here, each covariate is multiplied with a dummy, *PWD,* which takes the value 1 if the participant is a PWD, and 0 if not. We include the following covariates (explained in section 4.3.2) with and without interaction terms; *age, TV, computer, servants, female, livingwith 1, livingwith 2, news and rural.*[27] Additionally, we

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[25] All regressions were run using robust in STATA.

[26] To study the background sheet in more detail, see appendix A3

[27] There are two main ways to decide which covariates to include. One, on the basis on the covariates' significance, or the approach that we have chosen, based on beliefs of their possible effect on the dependent variables (Wooldridge, 2008).

measured the effect of priming on the non-PWDs by adding together *Priming* and *Non-PWD*Priming*, both when covariates were included and when they were not.

4.7 Ethics

We did not obtain a project specific approval due to our close cooperation with NAD, NUDIPU, and the local authorities in Tororo. We did not seek an approval in Norway either, as there are no routines at the universities to obtain ethical approvals for projects such as ours. One of the reasons why we did not obtain such approvals was our presumption that the experiment would not have a noticeable impact on the participants.

5 RESULTS

In this section we present our main findings.

5.1 Risk Preferences

We derived two different measures for risk preferences from the risk task: The participants' total number of risky choices and a dummy variable taking the value 1 if the participants made at least one risky choice. The results are presented in Table 5-1.

Table 5 - 1: Risk Preferences

	(1) Risky choices No covariates	(2) Risky choices With covariates	(3) Risk dummy No covariates	(4) Risk dummy With covariates
Priming	0.17	0.16	0.087	0.091
	(0.12)	(0.12)	(0.070)	(0.069)
Non-PWD Priming	-0.11	-0.12	-0.038	-0.047
	(0.15)	(0.15)	(0.089)	(0.088)
Non-PWD	0.0042	0.80	0.045	0.89**
	(0.11)	(0.61)	(0.066)	(0.35)
Constant	0.95***	1.05**	0.70***	0.65***
	(0.085)	(0.43)	(0.053)	(0.23)
Priming + Non-PWD*Priming	0.057	0.047	0.050	0.044
	(0.090)	(0.089)	(0.054)	(0.054)
N	399	399	399	399
R^2	0.0073	0.045	0.0069	0.060

Note: Column (1) and (2) reports the number of risky choices made, out of three possible ones. Column (3) and (4) reports a dummy that take the value 1 if the participant has taken one or more risky choices, and 0 if not. Both variables are regressed on treatment status, controlling for disability in column (1) and (3), and disability and covariates in column (2) and (4). Priming is an indicator variable, taking the value 1 if the participant is primed and 0 if not. Non-PWD Priming is a dummy taking the value 1 if the participant is a primed non-PWD and 0 if not. Non-PWD is a dummy taking the value 1 if the participant is a non-PWD and 0 if the participant has a disability. Standard errors in parentheses; *p<0.10, **p<0.05, ***p<0.01.

Column (1) and (2) display the total number of risky choices. The results seem to indicate that priming causes PWDs to make slightly more risky choices, but the effect is not statistically significant. The estimated treatment effect is not very sensitive to the inclusion of covariates. We observe this in all the following measurements. We do not observe any significant difference in observed risk preferences between the control groups of PWDs and non-PWDs. Column (3) and (4) compare those who chose one or more risky alternatives to those who always chose the safe alternative. When we control for covariates, we find that

significantly more of the non-PWDs in the control group made risky choices at a 5 per cent level.

As neither of the risk measures reveals any significant treatment effect, it suggests that there is no disability-specific norm associated with the risk preferences of PWDs.

5.2 Time Preferences

We created a dummy to identify the participants' time preferences. The dummy has the value 1 if the participant chose the later, higher payment; demanding the most patience, and 0 if the participant chose the early payment. The results are presented in Table 5-2, column (1) and (2).

Table 5 - 2: Time Preferences and Willingness to Compete

	(1) Time No covariates	(2) Time With covariates	(3) Compete No covariates	(4) Compete With covariates
Priming	-0.094	-0.088	0.056	0.062
	(0.080)	(0.081)	(0.067)	(0.062)
Non-PWD*Priming	-0.032	-0.059	-0.014	-0.013
	(0.10)	(0.10)	(0.089)	(0.085)
Non-PWD	-0.035	-0.31	0.069	-0.15
	(0.073)	(0.45)	(0.061)	(0.37)
Constant	0.49***	0.92***	0.20***	0.44*
	(0.058)	(0.30)	(0.046)	(0.23)
Priming + Non-PWD*Priming	-0.127**	-0.148**	0.042	0.049
	(0.062)	(0.063)	(0.058)	(0.060)
N	399	399	399	399
R^2	0.0161	0.0607	0.0075	0.1227

Column (1) and (2) reports time preferences, a dummy that takes the value 0 if the participant chose the early alternative (i.e. had high time preference), and 1 if the participant chose the later alternative with a larger amount of money. Column (3) and (4) reports compete, a dummy that takes the value 1 if the participant chose to compete, and 0 if the participant chose the safe rate. Both variables are regressed on treatment status, controlling for disability in column (1) and (3), and disability and covariates in column (2) and (4). Priming is an indicator variable, taking the value 1 if the participant is primed and 0 if not. Non-PWD*Priming is a dummy taking the value 1 if the participant is a primed non-PWD and 0 if not. Non-PWD is a dummy taking the value 1 if the participant is a non-PWD and 0 if the participant has a disability. Standard errors in parentheses; *p<0.10, **p<0.05, ***p<0.01.

The regressions in column (1) and (2) report time preferences. The results indicate a negative treatment effect on the time preferences among PWDs, but the effect is not statistically significant. However, we observe a negative treatment effect among the non-PWDs, indicating that they become less patient with priming. This is significant at a 5 per cent level. As the priming was directed towards PWDs, it is difficult to find a rational explanation for this result. We discuss this further in section 6.2. The results from the control group further

indicate that the non-PWDs have a higher time preference, i.e. are less patient than the PWDs. The difference, however, is not statistically significant. The results suggest that there is no disability-specific norm associated with the time preferences of PWDs.

5.3 Willingness to Compete

In order to identify the participants' willingness to compete, a dummy taking the value 1 if the participant chose to compete and 0 if not, was created. The results are presented in Table 5-2, column (3) and (4). We observe that there is no significant treatment effect on the PWDs' willingness to compete. The results in the control group indicate that non-PWDs are less willing than PWDs to compete, but the difference is not statistically significant. The results suggest that there is no disability-specific social norm associated with the willingness to compete among PWDs.

5.4 Performance under Pressure

The results of performance under fixed rate (MCQ1) and competition rate (MCQ3) are presented in Table 5-3.

Table 5 - 3: Performance under fixed rate and competition rate

	(1) MCQ1 No covariates	(2) MCQ1 With covariates	(3) MCQ3 No covariates	(4) MCQ3 With covariates
Priming	-0.12	-0.10	-0.19	-0.19
	(0.33)	(0.31)	(0.30)	(0.28)
Non-PWD*Priming	0.35	0.37	0.35	0.37
	(0.41)	(0.38)	(0.41)	(0.38)
Non-PWD	0.22	1.28	-0.053	2.14
	(0.29)	(1.79)	(0.30)	(1.59)
Constant	5.43***	5.02***	5.01***	5.12***
	(0.24)	(1.15)	(0.22)	(0.94)
Priming +	0.230	0.271	0.157	0.173
Non-PWD*Priming	(0.246)	(0.228)	(0.275)	(0.254)
N	399	399	399	399
R^2	0.0117	0.1894	0.0026	0.1818

Note: Column (1) and (2) reports the participants' performance on MCQ1, and column (3) and (4,) on MCQ3. Both variables are regressed on treatment status, controlling for disability in column (1) and (3), and disability and covariates in column (2) and (4). Priming is an indicator variable, taking the value 1 if the participant is primed and 0 if not. Non-PWD*Priming is a dummy taking the value 1 if the participant is a primed non-PWD and 0 if not. Non-PWD is a dummy taking the value 1 if the participant is a non-PWD and 0 if the participant has a disability. Standard errors in parentheses; *p<0.10, **p<0.05, ***p<0.01.

The results in column (1) and (2) indicate a negative treatment effect on the performance of PWDs, but the effect is not statistically significant. Column (3) and (4) suggest a larger negative treatment effect on the PWDs performance under competition rate, though still not statistically significant. We also observe that, when we control for observable background characteristics, the non-PWDs seem to perform better than the PWDs in the control group, both under the competition rate and the fixed rate. There is however, no statistically significant support for this. In sum, we find no support for the hypothesis that there is a disability-specific norm of poor performance under pressure.

5.5 Self-efficacy

The results of self-efficacy, measured by overestimation and overplacement, are presented in Table 5-4.

Table 5 - 4: Self-Efficacy

	(1) Overestimation No covariates	(2) Overestimation With covariates	(1) Overplacement No covariates	(2) Overplacement With covariates
Priming	-0.00083	-0.099	-0.046	-0.042
	(0.39)	(0.38)	(0.081)	(0.078)
Non-PWD*Priming	0.038	0.10	-0.047	-0.047
	(0.46)	(0.45)	(0.10)	(0.099)
Non-PWD	0.0076	1.06	0.19***	0.73*
	(0.32)	(1.87)	(0.070)	(0.42)
Constant	1.36***	0.19	0.54***	0.12
	(0.27)	(1.48)	(0.057)	(0.27)
Priming + Non-PWD*Priming	0.037	0.005	-0.092	-0.088
	(0.241)	(0.240)	(0.060)	(0.062)
N	399	399	399	399
R^2	0.001	0.0682	0.0335	0.1005

*Note: Column (1) and (2) reports overestimation, defined as how many answers the participants believed they got right on MCQ1, minus their actual performance on the same questions. Column (3) and (4) reports overplacement, defined as how many answers the participants believed they got right on MCQ1 minus how many they believed the others in the room got right on the same questions. Overplacement is a dummy that takes the value 1 if the participants believe they got the same amount of correct answers, or more, on MCQ1, than the others in the room. Both variables are regressed on treatment status, controlling for disability in column (1) and (3), and disability and covariates in column (2) and (4). Priming is an indicator variable, taking the value 1 if the participant is primed and 0 if not. Non-PWD*Priming is a dummy taking the value 1 if the participant is a primed non-PWD and 0 if not. Non-PWD is a dummy taking the value of 1 if the participant is a non-PWD and 0 if the participant has a disability. Standard errors in parentheses; *p<0.10, **p<0.05, ***p<0.01.*

The regressions in column (1), (2), (3) and (4) indicate a negative treatment effect on the task-related confidence of PWDs, but the effects are too small to be economically significant, and they are not statistically significant either. When measuring overestimation, the differences within the control group suggest that the non-PWDs have higher self-efficacy

than the PWDs, but the estimates are not statistically significant. In terms of overplacement in the control group, however, the results imply that significantly more non-PWDs than PWDs believed they did better than the others in the room. Without covariates this was at a 1 per cent level and with covariates at a 10 per cent level of significance.[28] In sum, we find no support for the hypothesis that priming has a negative effect on the self-efficacy of PWDs. However, the results indicate that the non-PWDs have higher self-efficacy than the PWDs.

5.6 Stereotype

We measure stereotype with regards to the abilities of PWDs, by comparing the number of correct answers each participant believed the PWDs and the non-PWDs each got on the last set of multiple-choice questions (MCQ3). Stereotype is a dummy that takes the value 1 if a participant believed that the PWDs on average did at least as well as the non-PWDs, and 0 if the participants believed they did worse. This means that the more positive the result, the less negative stereotype of PWDs' abilities. The results are presented in Table 5-5.

Table 5 - 5: Stereotype

	(1) No covariates	(2) With covariates
Priming	-0.15*	-0.15*
	(0.079)	(0.080)
Non-PWD*Priming	0.17*	0.17*
	(0.10)	(0.10)
Non-PWD	-0.16**	0.34
	(0.072)	(0.43)
Constant	0.50***	0.31
	(0.058)	(0.30)
Priming + Non-PWD*Priming	0.028	0.019
	(0.061)	(0.061)
N	399	399
R^2	0.0146	0.0660

*Note: The table reports stereotype, a dummy that takes the value 1 if the participant believed the PWDs got the same, or more correct answers than the non-PWDs on the MCQ3, and 0 if not. It is regressed on treatment status, controlling for disability in column (1), and disability and covariates in column (2). Priming is an indicator variable, taking the value 1 if the participant is primed and 0 if not. Non-PWD*Priming is a dummy taking the value 1 if the participant is a primed non-PWD and 0 if not. Non-PWD is a dummy taking the value 1 if the participant is a non-PWD and 0 if the participant has a disability. Standard errors in parentheses; *p<0.10, **p<0.05, ***p<0.01.*

The regressions in columns (1) and (2) reveal a statistically significant negative treatment effect at a 10 per cent level. This indicates that the PWDs believed they as a group

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[28] The drop in significance level may reflect multicollinearity.

performed worse than the non-PWDs when their disability-specific social identity was made salient. Further, we observe that there is no significant difference between the non-PWDs and the PWDs in the control group when covariates are included. Therefore, our results do not suggest that the non-PWDs displayed prejudice against the abilities of the PWDs.

5.7 Results with and without Covariates

R^2 serves as a goodness-of-fit-measure. How it varies with and without the inclusion of covariates indicates the amount of variation in our dependent variables, y_i, that is explained by the observed background characteristics (Wooldridge, 2009). We find that R^2 increases from about 0 to 0.18 when we control for background characteristics in both the participants' performance in MCQ1 and MCQ3 (Table 5-3). This suggests that differences in the control variables, for instance in age and school level, are likely to impact the participants' performance under pressure. With this in mind, it is not surprising that R^2 also increases (by about 10 percentage points) when we include the background variables to willingness to compete (Table 5-2) and overplacement (Table 5-4); two measures that are very dependent on the participants' performance in MCQ1 and MCQ3. Still, we do not see the same amount of increase for overestimation (Table 5-4), also closely linked to performance in MCQ1 and MCQ3. R^2 does not change a lot with the inclusion of background characteristics for risk and time preferences (Table 5-1 and 5-2, respectively), thus the covariates do not seem to explain much of the variation in these measures.

We provide a further analysis of our results in section 6.2.

6 DISCUSSION

In this part of the thesis, we give an in-depth discussion of our methods, an analysis of our results and suggestions to possible policy implications. In the latter we also discuss the possible external validity of our findings.

6.1 Discussion of Methods

This section contains a discussion on the choice of methods, the design and how these were implemented.

6.1.1 Experimental Economics: Laboratory Experiment

We carried out a laboratory experiment to explore the main objective of our study; to investigate the disability-specific social norms on entrepreneurial traits, and the potential stereotypes on the abilities of PWDs. By making disability identity unconsciously salient to the PWDs in the treatment group, all the while being in a controlled environment, we were able to objectively identify the causal role of disability-specific social norms on our variables of interest (Benjamin et al., 2010). We would have been more exposed to biased results stemming from subjective answers if we instead had interviewed PWDs directly, for instance asked them whether there are any disability-specific social norms on entrepreneurial traits. However, this does not mean that subjective-based surveys are invaluable as they are complements rather than substitutes to experiments such as this one (Falk and Heckman, 2009).

One of the main arguments against laboratory experiments is their particular setting; the risk of objects behaving differently than they would in real life situations, consequently producing "unrealistic" data (Falk and Heckman, 2009). However, Falk and Heckman (2009, p. 2) argue that:

"this view, despite its intuitive appeal, is based on a misunderstanding of the nature of evidence in science and of the kind of data collected in the lab. (…) Controlled variation is the foundation of empirical scientific knowledge. The laboratory allows tight control of decision environments".

Although natural experiments, field experiments and so forth, might produce more "realistic" data, the favorability of the controlled environment in a laboratory setting is difficult to replicate using such methods (Falk and Heckman, 2009).

6.1.2 A Controlled and Standardised Environment

In this section, we discuss the implementation of a controlled and standardised environment. We focus on the how and the why along three dimensions; the minimisation of reputational effects, the standardisation of instructions and the minimisation of age and school level differences.

6.1.2.1 Minimising Reputational Effects

As described previously, the effective implementation of a controlled environment is essential to a successful laboratory experiment (Falk and Heckman, 2009). Any talk of the experiment and its content between participants can jeopardise the standardised setting. Therefore, we took precautions to reduce communication between those who had completed the experiment and those who were yet to attend. Among others, we had the experiment carried out in the course of only twelve days and we executed the pilot only a few days prior to the main experiment. Additionally, we exploited the long distances between the different communities in the district. In doing this, the lack of easy transportation between the students who had participated and those who had not, reduced the chance of reputational effects. For instance, we only invited students from the most isolated school in the district for the pilot and we invited closely located schools to participate in the same sessions in the main experiment. In addition, we waited to have the students from the town schools participate until after the most rurally based students had participated. We did this in the hopes that the long distances to neighbours from other schools in the villages would reduce the overall amount of talk of the experiment in the execution period. Since the participants from the town schools did not have this natural barrier to communication, they signed the previously mentioned contracts at the end of their session, promising not to speak of the experiment's content to anyone. To further minimise reputational effects, we had as few schools as possible participate two days in a row, in the end encompassing only three out of the 36 participating schools.[29] It should be noted however, that this type of an experiment,

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[29] This can only have affected two sessions and our results are largely robust to the exclusion of these two sessions.

especially considering that it is incentivised, is a big event in such a rural district, and there is therefore still a risk of reputational effects.

To ensure that the participants did not jeopardise the standardised setting by influencing each other, we minimised their opportunities to communicate. We placed their desks far apart and had assistants oversee the participants both in the sessions and during the bathroom breaks. The participants were advised that any communication with other participants could result in banishment from the experiment. They were also given breakfast before their session in order to ensure focus and reduce any differences that might result from some participants being hungry.

6.1.2.2 Standardised Instructions

To ensure that all participants received the same instructions, we had the same moderator go through the same set of instructions each session. The instructions were also given through a public speaker system, so that they were equally clear to all. Deaf participants, and participants with severe hearing impairment were assisted by sign language interpreters. We had the same sign language interpreters and assistants helping the participants in all sessions to ensure standardised instructions. However, we are not ruling out the possibility that the staff became better at explaining the tasks during the course of the experiment, consequently giving participants in later sessions better instructions than participants in early sessions. On the other hand, as alternating sessions were assigned to treatment and control[30], both the treatment and the control group should have been exposed equally to this factor, enabling us to more easily identify any potential treatment effects[31]. Additionally, the assistants and the moderator had workshops and a pilot prior to the experiment where they practiced their tasks. Therefore, the learning curve should not have been very high. In conclusion, we do not expect these learning effects to have large impacts on our results.

6.1.2.3 Minimising Differences in Age and School Level

To further ensure a standardised setting, our objective was to have O-level students of similar age take part in the experiment. However, to obtain our target number of PWDs, we needed to invite A-level and primary school students. Since we are only able to control for the participants' own background characteristics in our regressions, any biases in the

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[30] The first session was randomly assigned to treatment.
[31] Our results are largely robust to clustering by session.

distribution of participants to sessions could potentially have influenced the participants' responses in a way we cannot sufficiently control for. For instance, if the majority of the PWDs in a session were primary students, their lower age and school level might be taken into account when the participants guess how they believe the PWDs and the non-PWDs performed on the last set of multiple-choice questions, consequently disturbing our stereotype measure. Additionally, if there are many particularly young participants from lower school levels, these factors might be taken into account when the participants guess how the others in the room performed on the first set of multiple-choice questions. This would create noise in our measure of willingness to compete and overplacement, which again would affect the self-efficacy measure. Therefore, we minimised the age and school level gap by inviting the primary and the A-level students to different sessions. Additionally, we had a similar number and distribution of PWDs and non-PWDs participate from these schools in two different sessions, one treatment and one control. This ensured that the treatment and the control group were equally affected by the differences in age and school level.

As we had two sessions with primary students where the bias tilted downwards in terms of age and school level, and two sessions with A-level students where it tilted upwards, it is likely that the two effects cancelled each other out. This would have improved the reliability of our results when it comes to the comparison of PWDs and non-PWDs in the control group. Finally, we also checked the distribution of stereotype, overplacement and competition choice in all of the sessions. The distributions do not indicate that the participants answered systematically different in the sessions with primary or A-level students. This suggests that the age and school level differences did not affect our results significantly.

6.1.3 Randomised Controlled Trial

In the academic world of development economics, the debate of the potential success of the RCT is heated (Banerjee and Duflo 2011, Deaton 2010). Although this particular debate is concentrated on field experiments, the arguments presented translates well to laboratory experiments. The supporters of RCTs argue its superiority in measuring treatment effects (Drageset and Ellingsen, 2009), but the critics question the extent of its external validity (Falk and Heckman, 2009). William Easterly further claims that "RCTs are infeasible for many of the big questions in development, like the economy-wide effects of good

institutions or good macroeconomic policies" (Banerjee and Duflo, 2011, p. 236). However, the fact that we cannot answer all questions with the use of RCTs indicates that the method should be used with care, but does not justify that the method cannot be of use (Banerjee and Duflo, 2011), for instance in an investigation such as ours. To what extent our results have external validity is discussed in section (6.3).

On a more technical note, Deaton (2010) argues that the information gained from finding the mean of the treatment effect in an RCT is a weakness rather than a strength as the RCT advocates claim. By concentrating on the mean effects, the characteristics of the tested population are overlooked. It is possible that a certain part of the sample and the population would benefit from the treatment, although the mean effect does not reveal this. If the mean result is what influences the decisions of policy makers, then the group that could have benefited from treatment misses out. However, as Falk and Heckman (2009) point out, this is only an argument for carrying out more RCTs. In conclusion, despite some negative arguments towards the use of RCTs, the RCT movement is large. Duflo (2004 in Deaton, 2010) argues that RCTs can "generate knowledge that can be used elsewhere, an international public good" (p. 438) and even the World Bank is employing this method in program evaluations (Deaton, 2010).

6.1.4 The Randomisation Procedure

We employed randomisation to be able to identify potential causal effects of treatment. The assistants who carried out the randomisation procedure had no knowledge of the randomisation procedure, i.e. they were masked. They divided the participating schools to treatment- and control sessions. Thus formally speaking, we randomized at school level, not at an individual level which would be preferred due to the larger number of units (Angrist and Pischke, 2008).[32] Additionally, we randomised among the rural schools first, then among the town schools. Randomising participants on an individual basis would, in our study, increase the chance of reputational effects, as participants attending the same school would participate in different sessions. This would enable easy communication on the content of the experiment before its completion, thus decreasing the chance of a controlled and standardised environment and consequently reducing the internal validity of the experiment. The same would most likely be the case if we did not take the differences in

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[32] Our results are largely robust to clustering at school level.

distances into account. By having all of the participants from town schools partake last, we believe we reduced the level of reputational effects substantially.

6.1.5 Mobilisation

We identify three main issues in relation to the mobilisation process; the way in which we determined who were considered PWDs, how we sought to minimise the chance of a biased selection of top students and why we decided to recruit secondary students from Tororo.

Whether a participant was considered a PWD or a non-PWD in the data was, among others, based upon the participants' answers to the background question; *Do you have a disability?* In order to obtain as accurate data as possible, we inquired NUDIPU and the local assistants on how to phrase the question with as few negative connotations as possible. *Disabled* is for instance a word with negative connotations in Uganda, and participants with disabilities could have hesitated to reveal their disability if we used this word.[33]

The fact that our randomisation procedure was at school-, not individual level, could potentially have led to a bias in the type of students the schools sent to participate. The students could for instance be a biased selection of top students. We reduced the chance of this by informing the schools that they should select the participating students at random, and that the data collected would not be used for any official ranking of the schools. Local assistants handed out the invitations in person to stress this. Additionally, since the schools were randomly appointed to days of treatment and control, the effects of a potentially selected group of students should have the same potential effects on the treatment and the control group. Hence, even if some schools recruited students that where the majority were well-performing students, we should still be able to identify potential treatment effects. It is also important to note that such biased recruitment was near impossible when it came to the PWDs, as we in almost every school, mobilised all of the PWDs that met our inclusion criteria.

6.1.6 Treatment: Priming

Attaining the marginal effects of social norms through priming is not straightforward. Both too strong and too weak priming is problematic. This is discussed in this section.

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[33] In discussions with Mr. Moses Moiza, District Rehabilitation Officer, prior to the pilot, 11.02.2012.

6.1.6.1 Too Strong Priming

If the priming is too strong, the manipulation could result in experimenter demand effects (Bargh and Chartrand, 2000). This refers to changes in the participants' behaviour because of awareness of the manipulation and its objective (Al-Ubaydli, 2011). Experimenter demand effects tilt the participants' responses in the direction which the participants believe the researchers prefer (Benjamin et al., 2010). The priming instruments employed in this study were carefully designed not to create such effects, for instance by mixing the social identity-relevant questions and -words with neutral ones. The local assistants were also carefully noted not to mention anything on disability in front of the participants. Additionally, as mentioned, apart from the participants with disabilities, PWDs were not visible to the participants neither during the meals nor the sessions. Nevertheless, since there were so few PWDs at each school[34], most of the time all (known) PWDs at the school were transported to the venue of the experiment together with only a few more non-PWDs. As such situations are rare, the experience might have led some of the participants to believe that the study had something to do with disability. The same can be argued for the laboratory environment where one third of the participants were PWDs and sign language interpreters were present. On the other hand, this was also the case among the participating PWDs in the laboratory experiment in Kampala, where they tested for experimenter demand effects, without finding any evidence of it (Øygard, 2012). The control group experienced the exact same transport situation, and although they received disability-neutral tasks, we believe it is unlikely that they would understand the situation very differently from the treated participants as the priming instruments were so carefully designed not to make the disability-focus obvious. In conclusion, we do not believe that the experimenter demand effects influenced our results significantly.

6.1.6.2 Too Weak Priming

Too weak priming can make it impossible to identify existing social norms (Plaut, 1995). If the increase in the strength of association with the social category (s) in the social identity model, section 2.2.1) is too small, there will be no significant influence on behaviour even if a relevant social norm exists. In addition, as the priming effect is only temporary, the time elapsed between the priming task and the measuring of effects must not be too long. The priming tools we employed, however, have previously, in our companion study, proven to

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[34] The median and average number of (known) PWDs at each school was seven.

generate significant results among PWDs in Uganda (Øygard, 2012). Since both the tasks and the time elapsed between the priming and the measuring of effects are equal in both studies, these tools should not be too weak. Therefore, the resulting non-significant priming effects in our study, should not be a consequence of too weak priming.

6.1.6.3 Additional Priming Effects

The participants might not have understood the link between the research project and disability. However, the transportation situation as well as the laboratory environment where one third had disabilities, might have made the social identity of PWDs salient to some of the participants, i.e. priming them. Since the treatment group were primed with the actual priming instruments, there should, theoretically, still be a difference in the priming effect enabling us to identify any potential marginal priming effect on stereotype. However, Benjamin et al. (2010) suggest, opposed to a lot of the literature on priming, that the marginal effect of priming could be decreasing in scale ($w'' < 0$) in the model described in section (2.2.1). If this is the case, then any additional priming effects would make it difficult to find a significant treatment effect, even if there are disability-specific social norms in terms of our variables of interest.

6.1.7 Instruments

In this section we discuss the instruments and review how they were implemented. One point is relevant for several of the instruments: To increase the chances of getting reliable results we incentivised the participants by payments in some of the tasks. Such incentives should increase the participants' effort when answering questions and ensure that they take their decisions seriously, improving the quality of our data (Falk and Heckman, 2009, Bjorvatn et al., 2012).

6.1.7.1 Risk Preferences

The experiences from the pilot and the feedback from the local assistants made us aware of the challenge of ensuring the participants' understanding of the risk task. Therefore, we had the moderator explain one case at a time, not proceeding to the next case before all participants confirmed to having selected their preferred alternative. We also had assistants who sought to clarify the task without dictating the participants' responses. To adapt the task to the sample's knowledge levels, as Berge, Bjorvatn, and Tungodden (2011) did in their study, we asked the participants to choose between only a few cases compared to many other

studies measuring risk preferences, e.g. the study by Benjamin et al. (2010). Still, in spite of all of these precautions, almost 20 per cent of the participants revealed inconsistent choice patterns. Some would, for instance, gamble when there was a small chance of winning, but choose the safe alternative when the chance of winning was large. As the amount of shillings in the safe and the risky alternative was the same in all three cases, these types of choices suggest that some participants did not understand the task, and consequently, did not make the rational choices necessary to obtain internal validity.

However, we find that removing the inconsistent participants from the sample makes no difference to the significance of our results. Thus, even though there might have been more participants who failed to understand the task, but by coincidence answered consistently, we believe that the task gives us an indication of the participants' average risk preferences. Importantly, because of the randomisation procedure and the fact that we are most interested in the potential priming effects, the amount of possible irrational answers should affect the treatment and the control group equally. We should therefore, if the irrational responses do not create too much noise in the data, still be able to identify any potential priming effect on risk preferences.

6.1.7.2 General Knowledge

The main objective with the multiple-choice questions was to obtain a tool to measure willingness to compete, self-efficacy and stereotyping in terms of performance under pressure. The priority of these questions on general knowledge was to create enough variation to measure willingness to compete, self-efficacy and stereotyping in terms of ability. Thus, they were not designed with the purpose of being a pure measure of general knowledge levels.

6.1.7.3 Time Preferences

We measured time preferences by having the participants imagine they could choose between receiving 1000 Ush in one week or 3000 Ush in five weeks. A challenge with this measure is the interaction Anderhub et al. (2001) find between time preferences and risk attitudes. More precisely, they find that risk-averse people tend to discount the future more because delaying the reward carries the risk of not receiving anything due to unforeseen circumstances. Therefore, any priming effect on risk preferences could make it harder for us to identify the potential priming effect on time preferences.

We sought to reduce the potential impact of risk preferences on time choice by not giving the participants the alternative of getting any money in the session itself. In addition, we tested whether it was likely that the reason we did not find treatment effects on time preferences among the PWDs was due to treatment effects on risk preferences. We did this by running this OLS regression equation:

$$(6.1a) \qquad y_i = \beta_0 + \beta_1 z_i + \beta_2(z_i * Priming) + \beta_3(Priming) + \varepsilon_i$$

Here, y is the dependent variable and z is the independent variable (in this case, time preferences and risk preferences[35], respectively), i is the individual participant and *Priming* a dummy that takes the value 1 if the participant is primed. It is likely to assume that, if neither β_2 nor β_3 are significantly different from 0, the priming effect on y would not have become significantly different from 0 if we had controlled for z. Testing revealed that there was a statistically significant difference in β_2 (-0.15 at a 5 per cent significance level), the slope in regression (6.1a). Consequently, there is reason to believe that, had we been able to control for risk preferences without obtaining biased estimates, it would have increased our chances of identifying any potential priming effects on time preferences.

Another point worth discussing in relation to this task is the lack of incentives. Due to logistical challenges and time constraints, the participants were asked to imagine what they would have chosen if the alternatives were true scenarios. As discussed previously, incentives increase the possibility of the participants taking their decisions seriously, increasing the chances of getting reliable results. Although both the control group and the treatment group were confronted with the same non-incentivised task, the lack of incentives may have generated noise in the data, giving less precise estimates, consequently making it harder to identify a potential priming effect.

6.1.7.4 Willingness to Compete

The participants choices of whether to compete or not were based on their own perceptions of how well they did on the first general knowledge test in addition to their willingness to compete. It is also possible that their risk preferences might have influenced their competition choice (Niederle and Vesterlund, 2007). The potential influence by their beliefs

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[35] As a measure for risk preferences we use the number of risky choices the participants made. Both this variable and time preferences are explained in section 5.

and risk attitudes create some challenges in identifying the priming effect on the participants' willingness to compete. Theoretically, the effect of priming can result in lower performance, leading to lower self-efficacy, and/or the priming could result in lower self-efficacy independent of performance. Additionally, priming could potentially lead to lower risk preferences. If any of this were true, we could find a significant difference between the treatment group and the control group in willingness to compete, not necessarily stemming from a priming effect on the actual willingness to compete. Any direction of a potential priming effect on performance, self-efficacy and risk preferences could of course make the identification of priming effect on willingness to compete, challenging. We tested whether this was likely to have happened by running regression (6.1a), the dependent variable being competition choice.[36] We ran (6.1a) twice, with z varying between the participants' beliefs of how many questions they answered correctly in MCQ1 (this measure should pick up relevant priming effects on actual performance in MCQ1) and their risk preferences.[37] We found no indications suggesting that we would get more statistically significant results if we controlled for either of these measures.

6.1.7.5 Self-efficacy

When measuring of self-efficacy, the participants earned money if they guessed their score on the MCQ1, as well as if they correctly guessed what the other participants in the session, on average, scored.

However, similar to the above discussion, the priming effect on self-efficacy may be difficult to identify as the priming could potentially reduce the treated participants' performance. If the primed participants, on average, are able to recognise a potential poorer performance, it could lead to lower self-efficacy among the primed participants, without it necessarily originating from a priming effect on self-efficacy. On the other hand, we regressed the participants' performance in MCQ1 on the participants' beliefs about their own performance in MCQ1. The results suggest that we would not have found statistically significant treatment effects on self-efficacy by controlling for performance in MCQ1.

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[36] Defined in section 5.

[37] As a measure for risk preferences we use the number of risky choices the participants made. The measure is defined in section 5.

6.1.7.6 Stereotype

Stereotype was measured by having the participants guess how many of the questions in MCQ3 the session's PWDs, and non-PWDs, on average got correct. In asking this, the objective of the experiment might have become obvious to some, possibly generating an experimenter demand effect. However, if this was the case, we would expect a positive priming effect on stereotype, not the negative effect we observe in the data. Additionally, as previously mentioned, the testing for experimenter demand effect in the companion study in Kampala suggested that our methods created no such effect (Øygard, 2012).

Another issue is the fact that the phrase *"people with disabilities"* were mentioned. This could possibly have affected the priming. As previously discussed, although the control and the treatment group are affected equally, such potential additional priming effects may (still assuming no experimenter demand effects) make it more difficult to identify any potential treatment effect. On the other hand, this does not seem to be a big problem in our particular sample as we find statistically significant effects of priming on the stereotype measure.

The participants were also not informed that they could earn money on the task, thus the task was effectively non-incentivised, potentially reducing the reliability of the data. However, the measurement of stereotype was one of the latter tasks in a session where the majority of the tasks were incentivised. It is therefore likely that, since the participants were not informed that they could not earn money on the task, they responded to the questions as if would have.

Lastly, it should be mentioned that the phrasing of this task was important, as words with negative associations such as disabled could have influenced the participants responses. Therefore, we used as neutral a phrasing as possible; *people with disabilities.*

6.1.2 Ethics

Practical restrictions prevented us from obtaining parental consent from the participants who were under 18 years old. This is not optimal, but we still carried out the project as we presumed our experiment would not have noticeable impacts on the participants. The laboratory experiment was also thoroughly discussed with both NUDIPU and the local authorities and they approved of the project design.

The fact that we compensated and incentivised the participants with money, created some inequalities both between the participants and their fellow students who did not participate. However, the amounts were not particularly large, making it unlikely that this would have long-term impacts on the participants. Additionally, the money was given in concealed envelopes so that the participants did not have to reveal their actual earnings to fellow friends or students.

6.2 Discussion of Results

In the following text we discuss our results and relate them to empirical literature, as well as relevant studies such as our companion study in Kampala.

6.2.1 Risk Preferences

Our results indicate that there are no disability-specific social norms associated with risk preferences. Similar results were found in Kampala (Øygard, 2012), indicating that there are no differences between the social norms associated with the risk preferences of PWDs in rural and urban areas.

When we examined the results in the control group, the first method indicated that the non-PWDs had higher risk preferences than the PWDs, but this was not statistically significant. The second method revealed that significantly more of the non-PWDs were willing to gamble. Apart from our companion study, we are not aware of other existing literature on PWDs' risk preferences in terms of economic decision-making. As discussed previously, attitude towards risk is important for the growth and success of a business. The findings by Caliendo et al. (2010) indicated an inverse U-shaped relationship between risk preferences and business survival, hence both too much and too little risk can be damaging. Figure 4-1 reveals that the average participant is risk averse. Therefore, with more willingness to take risk, but not too much, our results indicate that the non-PWDs could succeed in achieving more successful businesses as more seem to be willing to gamble.

6.2.2 Time Preferences

Our results suggest that there are no social norms associated with the time preferences of PWDs. These results are similar to those found in Kampala (Øygard, 2012). However, as pointed out in the discussion of methods, there is a possibility that we could have obtained statistically significant results had we been able to control for risk preferences. Somewhat surprisingly, we do find a statistically significant treatment effect among the non-PWDs.

They seem to get higher time preferences when they are primed with the social identity of disability. There is evidence in the literature indicating that making a specific social identity salient can affect individual behaviour even if the individual does not associate with the specific social category. For instance, Bargh et al. (1996) exposed students to a word scramble containing words associated with elderly stereotypes. The students responded to the priming by walking slower. These results indicate that it is possible to activate a stereotype that in turn causes the participants to act in accordance with the activated stereotype. It is difficult, however, to find a viable explanation for how this should translate to our results. Dissimilar to the mentioned experiment, our priming was not intended to activate a *stereotype* associated with PWDs among non-PWDs. For instance, the set of words *can soccer boat play he,* in our word scramble is difficult for a non-PWD to associate with disability. Although we cannot exclude the possibility of the association, the design of the priming tools makes it likely that we can assume that the statistically significant treatment effect on the non-PWDs is a coincidence. The fact that there was no significant treatment effect on non-PWDs on any of the estimated variables in Kampala supports this belief.

We find no statistically significant difference in the time preferences of the PWDs and the non-PWDs in the control group. This indicates similar levels of patience. As patience is an important entrepreneurial characteristic in making optimal saving and investment decisions, these findings suggest no difference between the PWDs and non-PWDs along this dimension. Our background statistics indicate that the PWDs in the sample are somewhat poorer than the non-PWDs[38], making these results somewhat contradicting to empirical literature. As previously discussed, poverty is often associated with being less patient. However, although the differences in background characteristics are statistically significant, they are small. Larger differences in wealth could be necessary to identify any effects on time preferences.

6.2.3 Willingness to Compete

We find no significant treatment effects the participants' willingness to compete. Our tests (described in section 6.1.7.4) indicate that there is no reason to believe that we had identified a treatment effect had we controlled for self-efficacy and risk preferences as is often done in

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[38] The differences we find in our background characteristics are translated to the control group due to the balance between the treatment and the control group (see section 4.5).

studies on willingness to compete.[39] This suggests that there are no disability-specific social norms associated with willingness to compete. This result is similar to what was found in our companion study in Kampala (Øygard, 2012).

The results in our control group indicate that the PWDs and the non-PWDs have the same willingness to compete. Similar results were found in Kampala (Øygard, 2012). Apart from the mentioned companion study, there is no research, of which we are aware, available on the willingness to compete among PWDs as a group. Consequently, nothing in our results or other available research suggests that PWDs should have different competition preferences compared to non-PWDs.

6.2.4 Performance under Pressure

Our results suggest that there are no disability-specific social norms associated with performance under pressure. This is in line with the findings in Kampala (Øygard, 2012). However, we hypothesised that priming would have a negative effect on the performance of the PWDs. This hypothesis was based on the fact that PWDs face negative stereotypes in terms of their abilities. Cuddy et al. (2007) investigate how stereotypes and emotions influence discriminating behaviour towards different groups. They find that PWDs are considered to be high in warmth, but low in competence. This is supported by the empirical findings of Gouvier et al. (1994) as they found that more redundant and concrete directions were given to the experimenters that appeared in wheelchairs compared to their walking colleagues. Theoretically, assuming that the stereotype of PWDs includes negative stereotyping in terms of their competence, stereotype threat could lower the performance of the PWDs when they are primed with their disability-identity.

Wang and Dovidio (2011) claim that a great deal of research has been conducted on people's perceptions of PWDs, but that little has been carried out on PWDs' experience of the negative stereotypes and prejudice they face. In their research, Wang and Dovidio primed two groups of PWDs, one with their student identity and one with their disability-identity. They found that PWDs primed with their student identity rather than their disability displayed more autonomy-related thoughts. However, there was no difference between the levels of help seeking when primed with their student or disability-identity. The researchers hypothesise that this is due to the low levels of stigma-consciousness among the individual

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[39] See for example Niederle and Vesterlund (2007) and Bjorvatn et al. (2012)

candidates. They argue that increased level of stigma-consciousness would have resulted in more effect of the priming. The fact that the PWDs in our sample experienced no stereotype threat could indicate that the participants have a low level of stigma-consciousness. Hence, the lack of significant priming could possibly be a consequence of this.

The CBR program in Tororo, evaluated in its early stages as rather successful (Claussen et al., 2005), has worked towards increasing tolerance towards PWDs. This has made it easier for many PWDs to identify with their disability-identity[40], and can assist in explaining the possible low level of stigma-consciousness expressed by the participants in this sample. Weiberg and Sterrit (1986) conducted research on how being able to identify with a disability-identity affects the individual level of the stigma-consciousness, which in turn impacts the performance of PWDs. As disability is not a homogenous concept, group identity is both dependent on the degree of disability and the self-perception of the disability. Children with disabilities can be encouraged by their parents to identify with non-PWD groups. In the experiment children with hearing impairment were classified into three main groups depending on how they responded to a questionnaire; able-bodied identity, disability-identity and dual identity. The results showed that the children with a predominately able-bodied identity had poorer academic outcomes. The children with disability-identity had slightly better outcomes, and the dual identity had the best outcomes. The results indicate that encouraging a child with a disability to identify with the able-bodied rather than their disability can have a negative effect on academic performance. This can be due to the encouragement being associated with less acceptance of the disability. The duel identity has the best outcome as it gives the child the opportunity to identify with both worlds, and therefore not be limited to one social identity. For the participants in this research project, being able to identify as both a PWD and a student, could possibly explain the lack of significant differences between the PWDs and the non-PWDs.

Another reason why the participants in this sample might have a low level of stigma-consciousness is that this is a special group of PWDs. Post experiment we interviewed PWDs in Tororo who did not attend school, but who were in the same age group as the participants in our experiment. Many of these subjects indicated that prejudice diminishes with education attainment. Demonstrating that they can achieve this level of education

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[40] As claimed by the District Rehabilitation Officer Moses Moiza, and also many of the subjects interviewed in the villages of Tororo. (12-14 March).

despite having a disability increases acceptance among parents and the rest of the community. Such a reduction in perceived prejudice by the PWD in our sample can cause a reduction in stigma-consciousness, and hence a reduction in stereotype threat. As a result, our findings can be a result of selection effects and the results might not be representative for PWDs who never attended, or dropped out of school before O-level.

The results in the control groups indicate that the non-PWDs performed better than the PWDs, but the results were not significant. In Kampala, the results revealed that the PWDs did somewhat better than the non-PWDs under both competition and fixed rate (Øygard, 2012). This suggests that there could be fewer differences between PWDs and non-PWDs in rural Tororo compared to urban Kampala.

In sum, the results from the general knowledge test reveal that performance under pressure is not affected in the presence of negative stereotypes. This is a very important finding, as discussed in the theory, being able to cope in pressured situations is crucial in ensuring the survival of a business.

6.2.5 Self-Efficacy

The measures of overestimation and overplacement reveal no significant treatment effect on the PWDs in our sample. In Kampala however, they found a positive treatment effect on overplacement (Øygard, 2012). This suggests that the disability-specific social norm on the beliefs of one's own abilities compared to others', is positive among the PWDs in Kampala, but non-existent among the PWDs in our study. Both of these results are in contrast to what we hypothesised; that priming would have a negative effect on the self-efficacy of PWDs due to the negative stereotypes associated with the abilities of PWDs.

The somewhat surprising results of no treatment effect in this study can, as discussed in relation to performance, stem from a low level of stigma-consciousness among the PWDs in our sample. Bat-Chava (1993) studied children with hearing impairments, and found that the children who identified with the deaf as a minority group, had more positive outcomes in terms of self-esteem than the one's who did not. A decrease in the levels of stigma-consciousness among the PWDs in our sample might therefore lead to an increase in their self-efficacy. As discussed previously, the success of the CBR program has allowed many to positively identify with their disability. Consequently, the CBR program might be the reason why we do not find a negative treatment effect on self-efficacy among the PWDs in our

sample. It is important to note however, that the CBR program is not a sufficient explanation for the differences in the Kampala-based and the Tororo-based PWDs' self-efficacy. Despite the fact that the CBR program does not exist in Kampala, we observe that the self-efficacy in terms of abilities among the PWDs in Kampala is higher than among the PWDs in Tororo. Therefore, other fundamental differences between Kampala and Tororo, the PWDs there, and/or any programs that have had a positive effect on the self-efficacy of the PWDs in Kampala, could have participated in creating these differences.

When measuring overestimation, there was no significant difference between the PWDs and the non-PWDs in the control group. In terms of overplacement however, the non-PWDs in our sample displayed a significantly higher level of self-efficacy compared to the PWDs. This suggests that these non-PWDs are more confident in their abilities when comparing themselves to others. The elements of self-efficacy discussed in the theory section suggest that such overconfidence can be destructive in terms of possible business failures. This indicates that the PWDs in this sample might have a more realistic concept of their own abilities compared to the non-PWDs, an important entrepreneurial trait when considering your own limitations and abilities in the choice of which type of business to start and what investments to make as an entrepreneur.

6.2.6 Stereotype

The results reveal that the primed PWDs, in comparison to the non-primed PWDs, expected a lower performance by the group of PWDs than by the group of non-PWDs. This finding suggests that the PWDs have feelings of inferiority in terms of the abilities of their group. Considering that we found no significant treatment effect on performance or self-efficacy, it is rather surprising that we did in terms of stereotype. Stereotype threat refers to confirming a negative stereotype so that it affects performance, thus we could assume that this would have been translated to the treatment effect on performance under pressure and self-efficacy. So, in spite of not finding any priming effects on performance under pressure and self-efficacy, the results in terms of stereotype reveal that there seems to exist negative stereotypes associated with the abilities of PWDs. It is important to emphasise that this is how the PWDs view their group, and not necessarily how they evaluate their own performance.

In contrast, there was no significant priming effect among the PWDs in Kampala, suggesting that the potential negative stereotype of PWDs' abilities is not internalised. It could also

suggest that there are fewer stereotypes relating to the abilities of PWDs in Kampala. The latter explanation is however, likely to be inadequate as the non-PWDs in the control group in our study revealed no significant negative stereotype in terms of PWDs' abilities, while the opposite was the case in Kampala. This indicates that there might be higher levels of negative stereotypes in terms of the abilities of PWDs' in urban Uganda compared to rural Uganda. Thus, these results could suggest that there is more prejudice regarding PWDs' abilities in Kampala than in Tororo. However, this is only an assumption as negative stereotypes can be founded in reality, meaning that PWDs actually are less able than non-PWDs. In terms of this instrument, however, the main aim was to identify possible internalised negative stereotypes that could affect how PWDs perceive their own group. The priming results on PWDs of negative internalised stereotypes in Tororo, and an empowerment effect of believing that the group of PWDs actually performed better than the non-PWDs in Kampala, indicate opposite effects of this instrument in rural and urban Uganda.

The fact that the non-PWDs in our sample expressed no significant stereotypes against the abilities of PWDs could be an indication of the success of the CBR program. Another possible explanation is that attending school with students with disabilities reduces the negative association towards them, as being subjected to PWDs as regular students might remove some of the stigma affiliated with the group. However, considering that PWDs in Uganda represent such a minority in enrolment rates, we see this as somewhat unlikely.

An alternative explanation could be that the non-PWDs in our sample have been taught not to display prejudice towards PWDs, and therefore this task does not reflect their true beliefs. As we explicitly ask how many correct answers they believed the participants with and without disability got on the previous round of multiple-choice questions, we might have triggered a response that is not in line with the non-PWDs actual beliefs. Additionally, the difference in results in Kampala and Tororo could have originated from an alteration to the instructions of the task. In Kampala, the participants were asked to guess how many the *disabled* answered correctly, while the term used in Tororo was *people with disabilities*. Although this is a small alteration, the more negative connotations of *disabled* might have primed (all of the) participants with negative stereotypes of PWDs, possibly affecting the beliefs of the abilities of the PWDs in Kampala negatively in this particular task.

6.3 Policy Implications

Our results do not reveal any disability-specific social norms associated with the five entrepreneurial characteristics of interest: risk- and time preferences, willingness to compete, performance under pressure and self-efficacy. We do, however, find that the PWDs in the rural setting of Tororo perceive PWDs as a group, compared to the non-PWDs, to be inferior in terms of abilities. In contrast, the results from urban Kampala reveal a "Yes, we can" effect among the PWDs, where having their disability made salient increases their self-efficacy in terms of abilities (Øygard, 2012). The differences in results motivate different policy implications.

The "Yes we can" effect on self-efficacy in the Kampala-study, indicates that promoting programs framed to include the word disability, among PWDs in Kampala, would lead to increased self-efficacy in the target group, thus increasing the efficiency of a program. In Tororo, however, such framing could have an adverse effect as the PWDs in the Tororo-study revealed internalised inferiority when asked how they believed their group performed compared to the non-PWDs. On the other hand, the internalised stereotypes are only revealed on a group level, not on an individual level. The priming on self-efficacy, relating to beliefs about the same type of task performance, did not reveal any disability-specific social norms. As a result, it is difficult to conclude as to how framing a program to include the word disability would impact the PWDs in Tororo. As a consequence, we would suggest keeping the framing disability-neutral in Tororo, and in Kampala framing it to include disability. This however, leaves a trade-off in view of efficient policy implementations. Being able to promote entrepreneurship as part of a general capacity building program is efficient in the sense that developing and implementing programs that can target several groups is regarded as more cost-efficient. Thus, having separate programs to target different groups of PWDs in the most effective manner might be more costly, and as a consequence prove to be less efficient than implementing only one program that targets both groups. To settle this matter, further research and analysis of the trade-off is needed.

In any case, our results indicate that it is still important to implement programs that can reduce the levels of negative stereotypes in terms of the abilities of PWDs. The PWDs in our study seem to experience inferiority towards their group, and the non-PWDs in Kampala expressed negative stereotypes in terms of the PWDs' abilities. Therefore, it is important to

allow programs such as the CBR program and other anti-discriminatory programs, to gain more widespread attention.

One of the great challenges in research is to obtain findings that are generalizable to the whole population to most efficiently implement policies that can be relevant to a larger group. As discussed earlier, we see that many of the challenges in terms of employing a randomised controlled trial approach through a laboratory experiment are related to the external validity of the results. The background characteristics from both our study and our companion study in Kampala suggest that the PWDs in Kampala are better off along some of the dimensions that describe economic and socio-economic status compared to the PWDs in the Tororo sample[41]. The major motivation for this thesis was in fact, to look at a more marginalised group of PWDs than the one in Kampala.

However, comparing the background characteristics of the PWDs in the Tororo sample to the PWDs we interviewed post experiment, our results indicate, not surprisingly, that there are even more marginalised groups of PWDs in Uganda[42]. Additionally, we know that the north of Uganda holds some of the most severe cases of socially excluded and marginalised PWDs where many PWDs live in camps resulting from decades of political unrest and war (Lang and Murangira, 2009). Therefore, there are groups of PWDs, also in Uganda, that our results might not be generalizable to, even though we studied a more marginalised group of PWDs than in our companion study in Kampala. On the other hand, comparing the findings from the two studies reveal a negative trend in terms of the PWDs' self-efficacy and internalised negative stereotypes in terms of abilities, the more marginalised the group. Thus, it seems likely that looking at even poorer groups will reveal equal or more negative results in terms of these measures and as such, the results from our study could be viewed as indicative upper bounds for more marginalised groups of PWDs in Uganda. Similar laboratory experiments are likely to reveal equal or poorer performance under pressure-, similar or less self-efficacy- and equal or more negative internalised stereotypes of, and among, the more marginalised PWDs. In terms of risk- and time preferences and willingness to compete, there is a larger degree of uncertainty in terms of the results for more

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[41] Fewer participating PWDs in Tororo have a TV or computer at home and their household heads are less likely to read the news compared to the PWDs in the Tororo study compared to the PWDs in the Kampala study. The differences we find in the background characteristics are translated to the control group due to the balance between the treatment and the control group in both our study and the study in Kampala.

[42] This is along the dimensions *TV* and *meat*, which are proxies for economic status.

marginalised groups of PWDs. This is due to the fact that there were no significant results along these measurements in neither Kampala nor Tororo.

Another issue of external validity arises due to the location in which the research was conducted. In Tororo, NAD is very present and known to many as it has been the main benefactor for the CBR program. One issue with this is that the research has been conducted in an area where increased tolerance and knowledge of the rights of PWDs has gained a lot of attention. This adds to the difficulty of generalising the findings to other more marginalised groups of PWDs. It is generally a problem in research that projects are conducted in areas where it is doable rather than optimal for the benefit of research. On the other hand, our study is, together with our companion study, an important exploratory contribution to the research on psychological barriers to entrepreneurship among PWDs. It will be interesting to see whether future research will enable us to, with more certainty, extrapolate our findings in a way that assures that the policies promoted are effective in targeting more than one specific group of PWDs.

7 CONCLUSION

The main objective of this research was to investigate whether there are any disability-specific social norms creating barriers to entrepreneurship for PWDs in developing countries. Entrepreneurship is increasingly being promoted as one of the most important tools in alleviating poverty, and PWDs as a group is highly represented in the poverty statistics. These factors indicate the great importance of this research project on psychological barriers to entrepreneurship amongst PWDs.

We investigated the social norms by making the social identity of disability salient to PWDs, and studied the possible causal effects this might have on the behaviour of PWDs. Our results reveal no significant treatment effects among the PWDs on any of the five entrepreneurial characteristics of interest. This suggests that there are no disability-specific social norms associated with risk and time preferences, willingness to compete, performance under pressure or self-efficacy. In terms of the three first characteristics, we explored the possibility of there being disability-specific social norms. With regards to performance under pressure and self-efficacy, we hypothesised that priming would have a negative effect due to negative social norms of the abilities of PWDs. We find a negative statistically significant treatment effect on the PWDs' stereotype of PWDs' abilities. This stems, most likely, from internalised thoughts of inferiority among the PWDs in this sample. At the same time however, we did not find that the non-PWDs displayed any prejudice of the abilities of the PWDs.

We consider this an exploratory experiment as little research has been carried out in this particular field. This research adds to the literature by increasing the understanding of PWDs' economic decision-making, preferences and how such choices are affected by the negative stereotypes they face in the community. It is difficult to generalize our findings to include all PWDs in Uganda as the participants in this sample can be regarded as a less marginalised group than many others. However, although more research is needed, this is an important input to the field, especially because it focuses on a more marginalised group than what was done in our companion study in Kampala.

The tools used in this experiment can be conveyed to investigate similar groups of PWDs in other parts of Uganda and in other countries. To investigate further to what degree our

results are robust, we are looking forward to seeing more laboratory experiments, but also more field experiments to examine whether the behaviour in the lab corresponds to the behaviour in a more real-life setting.

8 REFERENCES

AKERLOF, G. A. & KRANTON, R. E. 2000. Economics and Identity. *The Quarterly Journal of Economics,* 115**,** 715-753.

AL-UBAYDLI, O. H., D.; NYE, J.; PAGANELLI, M., P.; PAN, X. 2011. The causal effect of market participation on trust: An experimental investigation using randomized control. *GMU Working Paper in Economics No. 11-38.* George Mason University.

ANDERHUB, V., GÜTH, W., GNEEZY, U. & SONSINO, D. 2001. On the Interaction of Risk and Time Preferences: An Experimental Study. *German Economic Review,* 2**,** 239-253.

ANGRIST, J. D. & PISCHKE, J.-S. 2008. *Mostly Harmless Econometrics. An Empiricist's Companion,* Princeton and Oxford, Princeton University Press.

ARIELY, D., GNEEZY, U., LOEWENSTEIN, G. & MAZAR, N. 2009. Large Stakes and Big Mistakes. *The Review of Economic Studies,* 76**,** 451-469.

ARMENTA, B. E. 2010. Stereotype Boost and Stereotype Threat Effects: The Moderating Role of Ethnic Identification. *Cultural Diversity and Ethnic Minority Psychology,* 16**,** 94-98.

ASHTON, M., BARTLETT, R., MOODY, J. B., DAVILA-ORTEGA, L., FARMANESH, A., FREEBURG, E., KAMPING, C., MAC-IKEMENJIMA, D., MARQUEZ, S., MORAITIS, N., NEIL, C. & SAGUN, R. 2005. *Youth and the Millenium Development Goals: Challenges and Opportunities for Implementation* [Online]. Available: http://tig.phpwebhosting.com/themes/mdg/YouthMDG.pdf [Accessed 21.05.2012].

AUSTIN, P. C., MANCA, A., ZWARENSTEIN, M., JUURLINK, D. N. & STANBROOK, M., B. 2009. Systematic reviews. A substantial and confusing variation exists in handling of baseline covariates in randomized controlled trials: a review of trials published in leading medical journals. *Journal of Clinical Epidemiology,* 63**,** 142-153.

BANDURA, A. 1997. *Self-Efficacy: The Exercise of Control,* New York, W. H. Freeman and Company.

BANERJEE, A. V. & DUFLO, E. 2011. *Poor Economics,* New York, Public Affairs.

BANERJEE, A. V., DUFLO, E., GLENNESTER, R. & KINNAN, C. 2010. The miracle of microfinance? Evidence from a randomized evaluation. *BREAD Working Paper No. 278.*

BARGH, J. A. 2006. What have we been priming all these years? On the development, mechanisms, and ecology of nonconscious social behavior. *European Journal of Social Psychology,* 36**,** 147-168.

BARGH, J. A. & CHARTRAND, T. L. 2000. Studying the Mind in the Middle. A Practical Guide to Priming and Automaticity Research. *In:* REIS, H. T. & JUDD, C. M. (eds.) *Handbook of Research Methods in Social and Personality Psychology.* New York: Cambridge University Press.

BARGH, J. A., CHEN, M. & BURROWS, L. 1996. Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology,* 71**,** 230-244.

BARRON, T. & NCUBE, J. M. 2010. Introduction. *In:* BARRON, T. & NCUBE, J. M. (eds.) *Poverty and Disability.* London: Leonard Chesire Disability.

BAT-CHAVA, Y. 1993. Antecedents of Self-Esteem in Deaf People: A Meta- Analytic Review. *Rehabilitation Psychology,* 38**,** 221-234.

BECKER, G. S. & MULLIGAN, C. B. 1997. The Endogenous Determination of Time Preference. *The Quarterly Journal of Economics*, 729-758.

BENJAMIN, D. J., CHOI, J. J. & STRICKLAND, A. J. 2010. Social Identity and Preferences. *American Economic Review,* 100, 1913-1928.

BERGE, L. I. O., BJORVATN, K. & TUNGODDEN, B. 2011. Human and financial capital for microenterprise development: Evidence from a field and lab experiement. *NHH Discussion Paper 1/2011.*

BJORVATN, K., FALCH, R. & HERNÆS, U. J. V. 2012. Kvinner, kontekst og konkurranse: Funn fra et labeksperiment i Uganda. *Magma,* 5, 52-59.

BLANCE, A., TU, Y., BAELUM, C. & GILTHORPE, M. 2007. Statistical issues on the analysis of change in follow-up studies in dental research. *Community Dent Oral Epidemiol,* 35, 412-420.

BLASCOVICH, J., SPENCER, S. J., QUINN, D. & STEELE, C. 2001. African Americans and High Blood Pressure: The Role of Stereotype Threath. *Psychological Science,* 12, 225-229.

CALIENDO, M., FOSSEN, F. M. & KRITIKOS, A. S. 2009. Risk attitude of nascent entrepreneurs - new evidence from an experiementally validated survey. *Small Business Economics,* 32, 153-167.

CALIENDO, M., FOSSEN, F. M. & KRITIKOS, A. S. 2010. The impact of risk attitudes on entrepreneurial survival. *Journal of Behavior & Organization,* 76, 45-63.

CAMERER, C. & LOVALLO, D. 1999. Overconfidence and excess entry: An experimental approach. *American Economic Review,* 89, 306-318.

CARTER, N. M., GARTNER, W. B., SHAVER, K. G. & GATEWOOD, E. J. 2003. The career reasons of nascent entrepreneurs. *Journal of Business Venturing,* 18, 13-39.

CHEN, C. C., GREENE, P. G. & CRICK, A. 1998. Does Entrepreneurial Self-Efficacy Distinguish Entrepreneurs from Managers? *Journal of Business Venturing,* 13**,** 295-316.

CLAUSSEN, J., KANDYOMUNDA, B. & JAREG, P. 2005. *Evaluation of the Community Based Rehabilitation Program in Uganda* [Online]. Atlas Alliance. Available: http://www.norad.no/en/tools-and-publications/publications/publication?key=117376 [Accessed 18.04.2012].

CROCKER, J., MAJOR, B. & STEELE, C. M. 1998. Social Stigma. *In:* FISKE, S. T., GILBERT, D. T. & LINDZEY, G. (eds.) *The Handbook of Social Psychology.* 4th ed. New York: McGraw-Hill.

CROSON, R. & GNEEZY, U. 2009. Gender Differences in Preferences. *Journal of Economic Literature,* 47**,** 448-474.

CUDDY, A. J. C., FISKE, S. T. & GLICK, P. 2007. The BIAS Map: Behaviours From Intergroup Affect and Stereotypes. *Journal of Personality and Social Psychology,* 92**,** 631-648.

DE MEL, S., MCKENZIE, D. & WOODRUFF, C. 2007. Why Does Microfinance Fail to Reach? Experimental Evidence on Gender and Microenterprise Returns. *BREAD Working Paper No. 157.*

DEATON, A. 2010. Instruments, Randomization, and Learning about Development. *Journal of Economic Literature,* 48**,** 425-455.

DFID. 2000. *Disability, Poverty and Development* [Online]. Department for International Development, Great Britain. Available: http://www.handicap-international.fr/bibliographie-handicap/4PolitiqueHandicap/hand_pauvrete/DFID_disability.pdf [Accessed 18.04.1012].

DIJKSTERHUIS, A., CHARTRAND, T. L. & AARTS, H. 2007. Effects of Priming and Perception on Social Behavior and Goal Pursuit. *In:* BARGH, J. A. (ed.) *Social Psychology and the Unconscious. The Automaticity of Higher Mental Processes.* New York and Hove: Psychology Press.

DOVIDIO, J. F., PAGOTTO, L. & HEBL, M. R. 2011. Implicit Attitudes and Discrimintation Against People with Physical Disabilitites. *In:* WIENER, R. L. & WILLBORN, S. L. (eds.) *Disability and Aging Discrimination: Perspectives in Law and Psychology.* New York, Dordrecht, Heidelberg, London: Springer.

DRAGESET, S. & ELLINGSEN, S. 2009. Forståelse av kvantitativ helseforskning - en introduksjon og oversikt. *Nordisk Tidsskrift for Helseforskning,* 2**,** 100-113.

ELWAN, A. 1999. Poverty and Disability: A Survey of the Literature. *SP Discussion Paper.* Social Protection Unit, Human Development Network, The World Bank.

FALK, A. & HECKMAN, J. J. 2009. Lab Experiments Are a Major Source of Knowledge in the Social Sciences. *Science,* 326**,** 535-538.

FREDERICK, S., LOEWENSTEIN, G. & O'DONOGHUE, T. 2002. Time Discounting and Time Preference: A Critical Review. *Journal of Economic Literature,* 40**,** 351-401.

GEROSKI, P. A. 1995. What do we know about entry? *International Journal of Industrial Organization,* 13**,** 421-440.

GOUVIER, W. D., COON, R. C., TODD, M. E. & FULLER, K. H. 1994. Verbal Interations With Individuals Presenting With and Without Physical Disability. *Rehabilitation Psychology,* 39**,** 263-268.

GUALA, F. 2005. *The Methodology of Experimental Economics,* New York, Cambridge University Press.

HOFF, K. & PANDEY, P. 2006. Economic Consequences of Social Identity: Dicrimination, Social Identity, and Durable Inequalities. *The American Economic Review,* 96**,** 206-211.

HOGG, M. A. 2006. Social Identity Theory. *In:* BURKE, P. J. (ed.) *Contemporary Social Psychological Theories.* Stanford: Stanford University Press.

INGSTAD, B. & GRUT, L. 2007. See me, and do not forget me. People with disabilities in Kenya. SINTEF Health Research.

LANG, R. & MURANGIRA, A. 2009. *Disability Scoping Study* [Online]. DFID Uganda. Available: http://www.ucl.ac.uk/lc-ccr/downloads/06052009_Disability_Scoping_Study_Uganda.pdf [Accessed 18.04.2012].

LIST, J. A. & REILEY, D. 2008. Field Economics. *In:* DURLAUF, S. N. & BLUME, L. E. (eds.) *The New Palgrave Dictionary of Economics.* 2nd ed. Palgrave Macmillan.

MCCLAIN-NHLAPO, C. 2010. Mainstreaming and Inclusive Development. *In:* BARRON, T. & NCUBE, J. M. (eds.) *Poverty and Disability.* London: Leonard Cheshire Disability

MCLEISH, K. N. & OXOBY, R. J. 2011. Social interactions and the salience of social identity. *Journal of Economic Psychology,* 32**,** 172-178.

MINNITI, M., BYGRAVE, W. D. & AUTIO, E. 2005. Global Entrepreneurship Monitor. 2005 Executive Report. MA: Babson College and London Business School.

MOORE, D. A. & HEALY, P. J. 2008. The Trouble With Overconfidence. *Psychological Review,* 115**,** 502-517.

NIEDERLE, M. & VESTERLUND, L. 2007. Do women shy away from competition? Do men compete too much? *The Quarterly Journal of Economics,* 122**,** 1067-1101.

WORLD HEALTH ORGANIZATION & THE WORLD BANK 2011. World Report on Disability. World Health Organization and The World Bank.

PINDYCK, R. S. & RUBINFELD, D. L. 2005. *Microeconomics,* 6th ed. New Jersey, Pearson Prentice Hall.

PLAUT, D. C. 1995. Semantic and Associative Priming in a Distributed Attractor Network. *In:* MOORE, J. D. & LEHMAN, J. F. (eds.) *Proceedings of the 17th Annual Conference of the Cognitive Science Society.* Hillsdale: NJ: Lawrence Erlbaum Associates.

REYNOLDS, P. D., CAMP, M. S., BYGRAVE, W. D., AUTIO, E. & HAY, M. 2001. Global Entrepreneurship Monitor. 2001 Executive Report. Kansas City: Kauffman Center for Entrepreneurial Leadership.

RYDELL, R. J., RYDELL, M. T. & BOUCHER, K. L. 2010. The Effect of Negative Performance Stereotypes on Learning. *Journal of Personality and Social Psychology,* 99**,** 883-896.

SCHIAVO-CAMPO, S. & JACKSON, S. E. 1999. An international statistical survey of government employment and wages. Washington: World Bank.

SCHMADER, T., JOHNS, M. & FORBES, C. 2008. An Integrated Process Model of Stereotype Threat Effects on Performance. *Psychological Review,* 115**,** 336-356.

SCIENCES, T. R. S. A. O. 2002. *Foundations of Behavioural and Experimental Economics: Daniel Kahneman and Vernon Smith* [Online]. Sweden: The Royal Swedish Academy of Sciences. Available: http://www.nobelprize.org/nobel_prizes/economics/laureates/2002/advanced-economicsciences2002.pdf [Accessed 11.06.2012].

SHIH, M., PITTINSKY, T. L. & AMBADY, N. 1999. Stereotype Susceptibility: Identity Salience and Shifts in Quantitative Performance. *Psychological Science,* 10**,** 80-83.

STONE, J., LYNCH, C. I., SJOMELING, M. & DARLEY, J. M. 1999. Stereotype Threat Effects on Black and White Athletic Performance. *Journal of Personality and Social Psychology,* 77**,** 1213-1227.

TYSZKA, T., CIÉSLIK, J., DOMURAT, A. & MACKO, A. 2011. Motivation, self-efficacy, and risk attitudes among entrepreneurs during transition to a market economy. *The Journal of Socio-Economics,* 40**,** 124-131.

UBOS. 2002. *The 2002 Uganda Population and Household Census, Economic Characteristics* [Online]. Kampala: Uganda Bureau of Statistics. Available: http://www.ubos.org [Accessed 17.04.2012].

UBOS. 2006. *Uganda National Household Survey 2005/2006, Socio-Economic Module* [Online]. Kampala: Uganda Bureau of Statistics. Available: http://www.ubos.org [Accessed 17.04.2012].

UBOS. 2009. *2009 Statistical Abstract* [Online]. Kampala: Uganda Bureau of Statistics. Available: http://www.ubos.org [Accessed 18.04.2012].

UNESCO 2011. The hidden crisis: Armed conflict and education. *EFA Global Monitoring Report.* Paris: UNESCO.

WANG, K. & DOVIDIO, J. F. 2011. Disability and Autonomy: Priming Alternative Identities. *Rehabilitation Psychology,* 56**,** 123-127.

WEIBERG, N. & STERRIT, M. 1986. Disability and Identity: A Study of Identity Patterns in Adolescents with Hearing Impairments. *Rehabilitation Psychology,* 31**,** 95-102.

WOOLDRIDGE, J. M. 2009. *Introductory econometrics, a modern approach,* 4th ed. Cincinnati, South-Western Cengage Learning.

ØYGARD, S. 2012. *Disability, Social Identity, and Entrepreneurship: Evidence from a lab experiment in Uganda.* Master Thesis in Economics, Norwegian School of Economics.

APPENDIX

A.1 Acronyms

CBR Community Based Rehabilitation

MCQ Multiple-Choice Questions

NAD Norwegian Association for Disabled

NUDIPU National Union of Disabled Persons of Uganda

PWD Person with disability

USH Ugandan Shillings

UNHS Ugandan National Household Survey

WB World Bank

WHO World Health Organization

A.2 Instructions for the Laboratory Experiment

Note: All participants should be advised to go to the bathroom before session starts.

A.2.1 Before the session starts

[MODERATOR ensures that the participants follow the rules of conduct after entering the room]

[When Moderator receives a sign from the Head of the Experiment, he starts reading the introduction]

[The session]

A.2.2 Introduction

Welcome. We appreciate your willingness to participate in this session, which I will lead. In this session you will be asked to make some economic choices, and you will earn money based on your choices and your performance.

The results from this session will be used in a research project on entrepreneurship among the youth in Uganda. It is therefore very important that all of you follow certain rules. You are not allowed to talk to any of the other participants during the session. If you have any questions or need any help, please raise your hand and one of us will assist you. We kindly request that both participants and assistants turn off their mobile phones now. If someone does not follow these instructions, we will have to ask him or her to leave the workshop.

If you need to go to the bathroom during the workshop, please raise your hand.

Importantly, do not leave the room without permission.

[MODERATOR proceeds when everyone is back from the bathroom]

The session will be conducted under anonymity. It will not be possible for the other participants or anyone else, except for the researchers, ever to find out what choices you make, and hence what you earn in the session.

You will not be informed about how much money you have earned until the end of the

session. The researchers will then prepare an envelope containing the money you have earned, where they will ensure that it is impossible to identify the amount of money inside the envelope simply by looking at it.

This envelope will be handed over to you before you go home.

It is very important that you remember your desk number and report it in each activity, so that we can pay you correctly.

A.2.3 Section 1

A.2.3.1 Entrepreneurship: Primed or non-primed

Before we start, we would like to ask you some background questions on entrepreneurship. You will not earn money from answering these questions, but please answer each question as carefully as possible.

[MODERATOR waits as sheet titled "Entrepreneurship" is handed out]

You can now turn the sheet. You have 6 minutes to answer the questions.

[MODERATOR alerts the participants after 3 minutes]

[MODERATOR waits 6 minutes]

We will now collect the sheets. Make sure that you fill in your desk number.

[MODERATOR waits until the sheet "Entrepreneurship" has been filled in and collected]

A.2.3.2 Risk choice

Now we move to the next part of the session, where you will be able to earn some money. We will now hand out the sheet that explains the exercise.

[MODERATOR waits until the sheet "Risk" is handed out]

You can now turn the sheet, and I'll explain the details.

As you can see there are 3 cases on this sheet, all with 2 different alternatives.

You have to tick only one box in each case. Only one of the cases will be randomly selected to determine your earnings.

Please take a look at the first case. Here you can either choose to receive 2000 Ush guaranteed or you can choose to gamble. If you choose to gamble you can win 4000 Ush, but there is a 25 percent chance of winning and a 75 percent chance of losing, which means you get nothing.

Is everyone with me? Please raise your hand if you have a question. Now you can tick off your answer in case 1.

[MODERATOR waits while everyone makes their first choice]

Has anyone not finished the first case?

[MODERATOR continues when everyone has finished]

Please take a look at the second case. Here you can either choose to receive 2000 Ush guaranteed or you can choose to gamble. If you choose to gamble you can win 4000 Ush but there is a 50 percent chance of winning and a 50 percent chance of losing, which means you get nothing.

Is everyone with me? Please raise your hand if you have a question. Now you can tick off your answer in case 2.

[MODERATOR waits while everyone makes their second choice]

Has anyone not finished the second case?

[MODERATOR continues when everyone has finished]

Please take a look at the third case. Here you can either choose to receive 2000 Ush guaranteed or you can choose to gamble. If you choose to gamble you can win 4000 Ush but there is a 75 percent chance of winning and a 25 percent chance of losing, which means you get nothing.

Is everyone with me? Please raise your hand if you have a question. Now you can tick off your answer in case 3.

[MODERATOR waits while everyone makes their third choice]

Has anyone not finished the third case?

[MODERATOR continues when everyone has finished]

The assistants will now collect your sheets.

A.2.3.3 Distribution game 1: Dictator

We now move to the next part of the session. My colleagues will hand out the sheet explaining the exercise.

[MODERATOR waits until the sheet "Distribution 1" has been handed out to all participants, and then continues reading.]

You may now turn over the sheets, and I will read the instructions.

You are now paired with another participant. You will not know who you are paired with; only the researchers will know this.

You and the other participant have together received 2000 Ush in this part of the session. You are now asked to decide how much of the money to give to the other participant. You will receive the rest of the money. You will find examples on your sheets.

Please raise your hand if this is not understood.

[MODERATOR waits until this is explained to everyone who has raised their hands.]

You are now to decide how much to give to the other participant.

Please fill in an amount between 0 Ush and 2000 Ush.

[MODERATOR waits until the sheet "Distribution 1" has been collected from everyone.]

You have now sent money to another participant. Likewise, another participant has decided how much of the 2000 Ush to give to you. This is not the same person as the one who received the money you sent.

A.2.4 Section 2

A.2.4.1 Objective questions: Round 1

We will now move to the next session. We will ask you some general questions.

There are 10 questions, and for each question you can choose between four different answers. Tick one the correct answer. If you tick off more than one alternative, your answer will be considered incorrect.

For each correct answer, you are paid 200 Ush. Are you with me? If not, please raise your hand and the assistants will help you.

[MODERATOR waits until everyone has been assisted]

We will now hand out the questions, but please do not turn over the page before you are told to do so.

[MODERATOR waits until the sheet "Objective Questions Round 1" has been handed out.

MODERATOR continues when HE gives signal]

Remember to fill in your desk number, so that we can pay you correctly.

You have 10 minutes to answer the questions.

You can now turn over the sheet.

[MODERATOR alerts the participants after 5 minutes]

[MODERATOR waits until HE gives a signal - 1 minute left]

[MODERATOR waits until HE signals that the sheets can be collected]

This part of the session is now over. Please lay down your pens. My assistants will collect the sheets.

A.2.4.2 School and leisure: Primed or non-primed

We would now like to ask you some background questions related to school and leisure activities. You will not earn money from answering these questions, but please answer each question as carefully as possible.

[MODERATOR waits until the sheet "School and Leisure" has been handed out]

You can now turn the sheet, you have 6 minutes to answer the questions.

[MODERATOR alerts the participants after 3 minutes]

[MODERATOR waits 6 minutes]

We will now collect the sheets.

[MODERATOR waits until the sheet "School and Leisure" has been collected]

A.2.4.3 Beliefs and competition choice

We will now move to the next session. The assistants will hand out the sheets.

[MODERATOR waits until the sheet "Beliefs and Competition Choice" has been handed out]

You may now turn the sheets. On the top half of the page, titled "Beliefs", we first ask you how many you think you got right out of the 10 Objective Questions you answered before the questions about school and leisure. Second, we ask how many on average you think the others got right. We give a reward of 1000 Ush for each of the guesses that turn out to be correct.

Look at the bottom half of the sheet, titled "Competition choice". We will soon give you a second set of Objective Questions. This time, however, we will give you a choice between two different kinds of payment. Your first option is to receive 200 Ush for each correct answer. Your second option is to enter into a competition. Then you will be paid 500 Ush per correct answer if you are at least as good as the average in the first Objective Question test. If you provide fewer correct answers than this average, you will receive nothing.

Is this understood? If not, please raise your hand.

[MODERATOR waits until everyone has been assisted and continues reading]

Please tick the one alternative you prefer.

[MODERATOR continues when everyone has finished]

The assistants will now collect the sheets.

A.2.4.4 Distribution game 2: Spectator choice

In the next part of the session, you will make a decision that could have real consequences for two other participants in the session. I will explain the decisions in detail, but first the assistants will hand out the sheet explaining the exercise.

[MODERATOR waits until the sheet "Distribution 2" has been handed out to all participants, and then continues reading]

You are now to make a decision involving two other participants. You will not know who these two participants are. The two participants have earned an additional reward from answering the Objective Questions. The size of this reward depends on their performance in answering those questions.

One of the participants performed well and ended up among the top 50%. He or she has earned the high reward of 1500 Ush. The other participant performed not so well, and ended up among the bottom 50%. He or she earned the low reward of 500 Ush. Together, these two participants have therefore earned a total reward of 2000 Ush. Your job is to decide how to distribute this total reward between the two participants. You can choose between splitting the additional rewards equally or giving each of them the reward he or she earned.

You should now decide how to split the money between the two participants, by ticking off one of the boxes on your sheet.

[MODERATOR waits until the sheet "Distribution 2" has been filled in and collected]

A.2.4.5 Objective questions: Round 2

The assistants will now hand out the second set of Objective Questions.

You will work according to your chosen rate, either a fixed rate or a competition rate.

[MODERATOR waits until the sheets "Objective Questions Round 2" has been handed out to all participants]

You have 10 minutes to answer the questions. You can now turn over the sheets.

[MODERATOR alerts the participants after 5 minutes]

[MODERATOR waits until HE gives a signal - 1 minute left]

[MODERATOR waits until HE signals that the sheets can be collected]

This part of the session is now over. Please lay down your pens. My assistants will collect the sheets.

A.2.5 Section 3

A.2.5.1 Trust game

In the next part of the session, you are paired with another participant. You will not know who you are paired with.

You and the other participant will have different roles. One of you will first make a decision and then the other participant will respond to this.

We will now hand out a sheet to those of you who are to make the first choice; we ask the rest of you to wait patiently.

[MODERATOR waits until the sheet "Send Money" has been handed out to all senders (ODD NUMBERS), and then continues reading]

You may now turn over the sheet.

You are given 2000 Ush, whereas the participant you are paired with is given nothing. You can now decide to send some of the 2000 Ush to the other participant. The other participant receives three times the amount you send.

You will find examples on your sheet.

The other participant will later determine how much of what he or she has received to return

to you.

Please raise your hand if this is not understood.

[MODERATOR waits until this is explained to everyone who has raised their hand]

You are now to decide how much to return to the other participant. In the box at the bottom of the sheet, please fill in an amount between 0 and 2000 Ush.

[MODERATOR waits until the sheet "Send money" has been filled in and collected]

We will now hand out a sheet to those of you who are to respond. We ask the rest of you to wait patiently.

[MODERATOR waits until the sheet "Return money" (EVEN NUMBERS) has been handed out to all returners, and then continues reading]

You may now turn over the sheet.

The other person was given 2000 Ush, whereas you were given nothing. You have received three times what the other participant sent.

You will find examples on your sheet.

In the first box on your sheet, you can see how much you have received. You are to decide how much of this you want to return to the other participant.

Please raise your hand if this is not understood.

[MODERATOR waits until this is explained everyone who has raised their hand]

Please fill in an amount between 0 Ush and the amount you have received.

[MODERATOR waits until the sheet "Return money" has been filled in and collected]

A.2.6 Section 4

A.2.6.1 Use Language: Primed or non-primed

We will now ask you to do a language exercise. You will not earn money from this exercise,

but please work on it as carefully as possible. Importantly, fill in your desk number.

[MODERATOR waits as the sheet "Use Language" has been handed out]

You can now turn the sheet, and I'll explain the exercise. Each of you has in front of you a list of words. For each set of words, please make a sentence with four words. Use only four out of the five words. You will find an example on your sheet.

You have 6 minutes to work on the exercise, please start now.

[MODERATOR alerts the participants after 3 minutes]

[MODERATOR waits 6 minutes]

We will now collect the sheets.

[MODERATOR waits until the sheet "Use Language" has been filled in and collected]

A.2.6.2 Multiple-choice question: Round 3

We will now move to the next part of the session, where we hand out the third and final round of Objective Questions. This time everyone competes.

You will be paid 500 Ush per correct answer if you are at least as good as the average in the first Objective Question Test. However, if you provide fewer correct answers than this average, you will receive nothing.

Is this understood?

The assistants will now hand out the final set of Objective Questions.

You have 10 minutes to answer the questions. You can now turn over the sheets.

[MODERATOR alerts the participants after 5 minutes]

[MODERATOR waits until HE gives a signal - 1 minute left]

[MODERATOR waits until HE signals that the sheets can be collected]

This part of the session is now over. Please lay down your pens. My assistants will collect

the sheets.

A.2.6.3 Time Choice

In this part of the session you will not earn money. Imagine if you could choose between receiving an amount of money early or a higher amount later.

My colleagues will hand out the sheet that explains the exercise.

[MODERATOR waits until the sheet "Time choice" has been handed out to all participants]

You may turn over your sheet, and I'll explain this in detail.

As you can see, the early payment is 1 week from now, and the later payment 5 weeks from now. The early payment is 1000 Ush, while the later payment is 3000 Ush.

Is this clear?

Please tick off the one alternative you prefer.

[MODERATOR waits until the sheet "Time choice" has been filled in and collected.]

A.2.6.4 Beliefs 2

We would now like to ask you some questions on how well you think you and other participants, both people with disabilities and people without disabilities, performed in the last objective question test.

We will now hand out the sheet.

[MODERATOR waits until the sheet "Beliefs 2" has been handed out]

You may now turn the sheets.

[MODERATOR waits until the sheet "Beliefs 2" has been filled in and collected]

A.2.7 Section 5: Final questions

A.2.7.1 Career Choice

Now we would like you to answer some questions about career choice.

My assistants will now hand out the questions.

[MODERATOR waits until the sheet "Career Choice" has been handed out]

First we will look at question 1. Assume that you could choose between the following job opportunities; private sector employee, government employee, own business and farmer, and that the income and work hours were exactly the same in all of them. You should rank them so that 1=most preferred, 2=preferred second, 3= preferred third and 4=least preferred.

Has everyone answered question 1?

[MODERATOR waits until everyone has finished]

Now look at question 2. What would you do if you had 1 million Ush? You can choose **A**. use them to buy something nice for myself or my family. **B.** Use them to start a business. **C.** Use them to pay my education. If you choose **D.** Others, please specify in the box below. **Only tick one of the boxes.**

Question 3 is a bit long. Here we want you to picture yourself 10 years from now. Look at the career choices and answer each and everyone from a scale from 1 to 5, where 1 is very unlikely and 5 is very likely. Take your time to tick off one choice per career option.

Has everyone finished answering question 3?

[MODERATOR waits until everyone has finished]

Now look at the final question, question 4. Where do you see yourself living in 5 years from now? Like question 3, answer the likelihood of living in a big city, small town, rural area and outside Uganda on a scale from 1 to 5 where 1 is very unlikely and 5 is very likely. Tick only one choice per location.

Has everyone finished question 4?

[MODERATOR waits until everyone has finished]

My colleagues will now collect your sheets.

A.2.7.2 Background information

Now we would like you to answer some background questions.

The assistants will now hand out the final questions.

[MODERATOR waits until the sheet "Background" has been handed out]

You may now turn the sheets.

[MODERATOR waits until the sheet "Background" has been filled in and collected]

We would like to thank you all for participating in this session. Your input will be most valuable for our research project on entrepreneurship among the youth in Uganda.

May we ask you not to discuss this session with others before the end of the next two weeks, since we will arrange further sessions with other students in Tororo in the coming days. We will soon hand out a contract, and we ask you to sign this, agreeing to not discuss the contents of this session with your friends and fellow students.

We will now hand out the contract.

[MODERATOR waits until the sheet "Contract" has been handed out]

[MODERATOR waits until the sheet "Contract" has been filled in and collected]

We will now start handing out your payments in envelopes.

After everyone has received their envelopes you are free to leave the room. Please leave the pen on your desk when you leave the room. Again, thank you for your participation in this workshop.

A.3 The Instruments

Handout 1-A

ENTREPRENEURSHIP   DESK NUMBER _____

Please answer the following questions as carefully as possible:

a) Does your father/guardian own a business?

b) Does your mother/guardian own a business?

c) What would be the greatest challenge for you if you were to open a business?

d) Is there some kind of work or business that you would not be able to do?

e) Do you like hard physical work?

f) What would be your dream job?

g) Did you have a different dream job when you were younger?

h) Do your friends have the same dream job as you?

Handout 1-B

ENTREPRENEURSHIP   DESK NUMBER   _____

Please answer the following questions as carefully as possible:

a) Does your father/guardian own a business?

b) Does your mother/guardian own a business?

c) What is the most common type of small business in Uganda?

d) Who is the most famous Ugandan business person?

e) Who is the most famous business person in the world?

f) Who is the dominant brewer in Uganda?

g) Why is Uganda often considered the business hub of East Africa?

h) What is the most popular hotel in Kampala?

Handout 2

RISK   DESK NUMBER _____

Case 1: 2000 Ush guaranteed ☐ **OR** 4000 Ush with 25% probability of winning ☐

Case 2: 2000 Ush guaranteed ☐ **OR** 4000 Ush with 50% probability of winning ☐

Case 3: 2000 Ush guaranteed ☐ **OR** 4000 Ush with 50% probability of winning ☐

Handout 3

DISTRIBUTION   DESK NUMBER   _____

You and another participant have **together** received 2000 Ush in this part of the session. You are now asked to decide how much of the money to give to the other participant. You will receive the rest of the money.

Examples: If you give 0 Ush to the other participant, you remain with 2000 Ush
             If you give 1000 Ush to the other participant, you remain with 1000 Ush
             If you give 2000 Ush to the other participant, you remain with 0 Ush

I want to give the following amount to the other participant: |_____| Ush

Handout 4

OBJECTIVE QUESTIONS: Round 1   DESK NUMBER _____

TOPIC 1: GENERAL KNOWLEDGE

Question 1:   Which is the largest continent measured by size?

☐ A   Africa

☐ B   North America

☐ C   Asia

☐ D   South America

Question 2:   Ferguson is a coach of which football club?

☐ A   Manchester United

☐ B   Newcastle

☐ C   Liverpool

☐ D   Arsenal

Question 3:   Which country has the largest population?

☐ A   India

☐ B   USA

☐ C   China

☐ D   Brazil

Question 4:   What is the major cause of death among children in Africa?

☐ A   HIV

☐ B   Malaria

☐ C   TB

☐ D   Sickle cells

Question 5:   What is the average heart beat per minute for a resting adult

☐ A   100

☐ B   40

☐ C   150

☐ D   70

Question 6:   What is the use of ventilators in a house?

- [ ] A   Allowing fresh air
- [ ] B   Allowing light
- [ ] C   Allow change of gases
- [ ] D   For design

Question 7:   Which is the largest planet in the solar system?

- [ ] A   Merkur
- [ ] B   Venus
- [ ] C   Jupiter
- [ ] D   Saturn

TOPIC 2: MATH

Question 8: Multiply 34 by 238.

- [ ] A   8082
- [ ] B   8032
- [ ] C   8092
- [ ] D   7992

Question 9: Subtract 1297 from 2532.

- [ ] A   1345
- [ ] B   1235
- [ ] C   1335
- [ ] D   1245

Question 10: Divide 1144 by 8

- [ ] A   133
- [ ] B   147
- [ ] C   143
- [ ] D   139

Handout 5-A

SCHOOL AND LEISURE   DESK NUMBER_____

Please take time to answer the following questions as carefully as possible:

a) In which area is your school located?

b) Are the teachers at your school mainly males or females?

c) Does your parents/guardians or other family members assist you in any way with your school work?

d) What opportunities do you have for doing sports at school?

e) Do you enjoy doing sports?

f) If there is one thing you could change at school, what would that be?

g) What do you prefer to do with friends outside of school?

h) Is there one thing that you dream of doing with your friends?

Handout 5-B

SCHOOL AND LEISURE   DESK NUMBER_____

Please answer the following questions as carefully as possible:

a) In which area is your school located?

b) Are the teachers at your school mainly males or females?

c) What are the neighbouring countries of Uganda?

d) What are the colors in the flag of Uganda?

e) When did Uganda gain independence?

f) What is your favorite dinner food?

g) What is your favorite soft drink?

h) Who do you think is the most famous person in the world?

Handout 6

BELIEFS/COMPETE   DESK NUMBER_____

BELIEFS

1.   How many answers do you think you got right out of the
      10 Objective Questions you answered
      before the questions about school and leisure?

2.   How many answers do you think on average that the others
      got right?

_____

COMPETITION CHOICE

Please tick the one alternative you prefer:

Fixed rate: 200 Ush for each correct answer

Competitive rate: 500 Ush if you performed at least as good as the average
                        0 Ush if you performed worse than the average

Handout 7

DISTRIBUTION 2   DESK NUMBER_____

Your decision will determine the payment for two <u>other</u> participants.

You have two alternatives. Tick off the **one** alternative you prefer:

Alternative 1: Splitting equally means that both the high performer and
the low performer receive 1000 Ush.

Alternative 2: Each person gets what he or she earned, which means that
the high performer receives 1500 Ush and the low performer
receives 500 Ush.

Handout 8

OBJECTIVE QUESTIONS: <u>Round</u> 2   DESK NUMBER _____

TOPIC 1: GENERAL KNOWLEDGE

Question 1:   Which vitamin is plenty in oranges?

☐   A   Vitamin A

☐   B   Vitamin B

☐   C   Vitamin C

☐   D   Vitamin D

Question 2:   In which country is Copenhagen the capital city?

☐   A   Denmark

☐   B   Switzerland

☐   C   Germany

☐   D   The Netherlands

Question 3:   Christino Ronaldo plays for which team?

☐   A   Arsenal

☐   B   Real Madrid

☐   C   Liverpool

☐   D   Manchester United

Question 4:   Which part of the body does HIV affect?

☐   A   Red blood cells

☐   B   Mucous membrane

☐   C   Genitals

☐   D   White blood cells

Question 5:   Which organ does the hepatitis B virus infect?

☐   A   Liver

☐   B   Lungs

☐   C   Heart

☐   D   Kidneys

Question 6:   What is the gestation period of the cow?

☐ A   One year

☐ B   250 days

☐ C   30 weeks

☐ D   9 months

Question 7:   Which of the following does not produce live ones?

☐ A   Boa snake

☐ B   Rats

☐ C   Dove

☐ D   Bats

TOPIC 2: MATH

Question 8:   Add the numbers 115, 57, 113, 231, and 382.

☐ A   896

☐ B   898

☐ C   886

☐ D   903

Question 9:   Divide 352 by 8.

☐ A   46

☐ B   42

☐ C   44

☐ D   37

Question 10:   Subtract 2489 from 5263.

☐ A   2774

☐ B   2784

☐ C   2884

☐ D   2874

Handout 9

SEND MONEY   DESK NUMBER_____

You are given 2000 Ush, whereas the other participant is given nothing.

The other participant receives three times the amount you send.

Examples: If you send 0 Ush, the other receives 0 Ush

                       If you send 1000 Ush, the other receives 3000 Ush

                       If you send 2000 Ush, the other receives 6000 Ush

The other participant will later decide how much to return to you.

I   want   to   [   ]   send Ush

Handout 10

RETURN MONEY   DESK NUMBER_____

The other participant was given 2000 Ush and decided how much to send to you.
You have received three times the amount he or she sent.

The tripled amount you received is: ☐ Ush

I want to return: ☐ Ush

Handout 11-A

USE LANGUAGE   DESK NUMBER_____

Each of you has in front of you a list of 15 sets of words. For each set of words, please make a sentence with FOUR words. For example, using the list of words "flew, eagle, the, plane, around" one could make the sentence "the eagle flew around".

Set	Words
1	his loves body she to
2	went slowly he always to
3	car drove well she her
4	can soccer boat play he
5	she different girl the was
6	deaf song from birth was
7	closed health exceptional was station
8	perfect he help needed much
9	sweating of limbs the function
10	shining was car sun the
11	chronic singing disease was the
12	friends family support great from
13	save does study usually he
14	school disability had a she
15	exceptional certainly under was she

1   _____   _____   _____   _____

2   _____   _____   _____   _____

3   _____   _____   _____   _____

4   _____   _____   _____   _____

5   _____   _____   _____   _____

6   _____   _____   _____   _____

7   _____   _____   _____   _____

8   _____   _____   _____   _____

9   _____   _____   _____   _____

10   _____   _____   _____   _____

11   _____   _____   _____   _____

12   _____   _____   _____   _____

13   _____   _____   _____   _____

14   _____   _____   _____   _____

15   _____   _____   _____   _____

Handout 11-B

USE LANGUAGE   DESK NUMBER_____

Each of you has in front of you a list of 15 sets of words. For each set of words, please make a sentence with FOUR words. For example, using the list of words "flew, eagle, the, plane, around" one could make the sentence "the eagle flew around".

Set	Words
1	mud lot a carpet of
2	came home he always to
3	car drove well she her
4	likes watch boat to he
5	she great car the was
6	is pride the from south
7	closed the exceptional was music
8	movie he the watched much
9	boat of is the blue
10	shining was car sun the
11	raining it was the heavily
12	feather great from the bird
13	save does study usually he
14	water she cold the is
15	common coat is not snow

1   _____   _____   _____   _____

2   _____   _____   _____   _____

3   _____   _____   _____   _____

4   _____   _____   _____   _____

5   _____   _____   _____   _____

6   _____   _____   _____   _____

7   _____   _____   _____   _____

8   _____   _____   _____   _____

9   _____   _____   _____   _____

10   _____   _____   _____   _____

11   _____   _____   _____   _____

12   _____   _____   _____   _____

13   _____   _____   _____   _____

14   _____   _____   _____   _____

15   _____   _____   _____   _____

Handout 12

TOPIC 1: GENERAL KNOWLEDGE

Question 1:   Which country won the world cup title in football in 2010?

☐ A   England

☐ B   South Africa

☐ C   Brazil

☐ D   Spain

Question 2:   In which country do we find the city Chicago?

☐ A   England

☐ B   France

☐ C   Germany

☐ D   USA

Question 3:   How long is a normal pregnancy for women?

☐ A   25 weeks

☐ B   40 weeks

☐ C   30 weeks

☐ D   50 weeks

Question 4:   What is the capital of Great Britain?

☐ A   London

☐ B   Manchester

☐ C   Birmingham

☐ D   Liverpool

Question 5:   Which of the following foods can help stop diahorrea?

☐ A   Rice porridge

☐ B   Orange

☐ C   Milk

☐ D   Mango

Question 6: Which is the most important source of energy to your body?

- [ ] A Proteins
- [ ] B Fat
- [ ] C Carbohydrates
- [ ] D Vitamins

Question 7: Which is the most common health problem in the USA?

- [ ] A HIV/AIDS
- [ ] B Cholera
- [ ] C Obesity
- [ ] D TB

TOPIC 2: MATH

Question 8: Divide 3528 by 8.

- [ ] A 424
- [ ] B 441
- [ ] C 446
- [ ] D 451

Question 9: Multiply 277 by 6.

- [ ] A 1662
- [ ] B 1652
- [ ] C 1673
- [ ] D 1636

Question 10: Add the numbers 115, 88, 217, and 346.

- [ ] A 761
- [ ] B 756
- [ ] C 766
- [ ] D 782

Handout 13

TIME CHOICE   DESK NUMBER _____

Imagine that you could choose between receiving 1000 Ush one week from now or 3000 Ush five weeks from now.

Which one would you choose?

 One week from now   Five weeks from now

    1000   Ush   [   ]   OR   3000   Ush   [   ]

Handout 14

BELIEFS 2   DESK NUMBER _____

1   How many answers do you think you got right out
         the 10 Objective Questions in the last round?

As you can see, some of the participants in the room have a disability

2   Out of the 10 Objective Questions, how many answers
         do you think on average that the <u>people with disabilities</u> got right?

3   How many answers do you think on average that
         those <u>without</u> disabilities got right?

Handout 15

CAREER CHOICE   DESK NUMBER _____

**Q1. Assume that you could choose between the following job opportunities
and that the income and work hours were exactly the same in all of them.
How would you rank them (1-4),
where 1=my first choice, 2=second choice, 3= third choice, 4=fourth choice**

Private sector employee

Government employee

Own business

Farmer

**Q2. What would you do if you had 1 million Ush? (tick off
only one)**

A   Use them to buy something nice for myself or my family

B   Use them to start a business

C   Use them to pay for my education

D   Other, specify

If other, specify here

CAREER CHOICE   DESK NUMBER _____

Q3. Where do you see yourself 10 years from now?
The scale is from 1-5, where 1 means very unlikely and 5 means very likely.

I see myself as a:	Very Unlikely 1	Somewhat Unlikely 2	Neutral 3	Somewhat Likely 4	Very Likely 5
1.Teacher					
2. Tailor					
3. Engineer					
4. Electricity supplier					
5. Government office employee					
6. Farmer					
7. Police officer					
8. Soda business owner					
9. Café owner					
10. Unemployed					
11. Housewife					
12. Hairdresser					
13. Cosmetics business owner					
14. Livestock keeper					
15. Charcoal business owner					
16. Waiter in café					
17. Taxi driver					
18. Selling CDs and DVDs					
19. Bank clerk					
20. Nurse					

Q3 (continued) Where do you see yourself 10 years from now?
The scale is from 1-5, where 1 means very unlikely and 5 means very likely.

I see myself as a:	Very Unlikely 1	Somewhat Unlikely 2	Neutral 3	Somewhat Likely 4	Very Likely 5
21. Big business owner					
22. Medical student at University					
23. TV/Radio presenter					
24. Business student at University					
25.Combining business and agriculture					
26. Combining employment and business					
27. Factory worker					
28. Combining employment and agriculture					
29. Beauty saloon owner					
30. Shop owner					
31. Shop keeper					
32. Hotel worker					

Q4. Where do you see yourself living in 5 years from now?
The scale is from 1-5, where 1 means very unlikely and 5 means very likely.

I see myself living in:	Very Unlikely 1	Somewhat Unlikely 2	Neutral 3	Somewhat Likely 4	Very Likely 5
1.Big city					
2. Small town					
3. Rural area					
4. Outside Uganda					

Handout 16

BACKGROUND   DESK NUMBER   _____

Name	
Gender (Male/Female)	
Age	
Name of school	
Your mobile phone number	

Do you have a disability? (Yes/No)	
If yes, what kind of disability do you have?	

Parents/Guardians

Who do you live with? 1=Father and mother 2=Father or mother 3= Other; specify	

Name and mobile phone number of parents/guardians	

Occupation of household head 1=Government employee 2= Private company employee 3= Peasant 4= Own business 5= Other; specify	

Household-issues

Do you have a TV at home? (Yes/No)	
Do you have a computer at home? (Yes/No)	
Does the household head read the newspaper? (Yes/No)	
How many servants to you have in the house? (Write 0 if you don't have any servants)	
How often do you eat meat at home in a week? (Answer in number of days per week)	