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Parents' and School Career Counsellors' Evaluations of the Occupational Competence of Children With Dyslexia

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Abstract

This article studies the cognitions of (a) parents of children with dyslexia and (b) school career counsellors about possible career choices for dyslexic children, by comparing their evaluations of occupational competence (EOCs) for dyslexic children, to those for children without dyslexia. For dyslexic children, 116 participants rated the suitability of 28 occupations, varying according to the required level of written-language use. For children without dyslexia, the same participants rated these same occupations according to if they estimated it might be a "good" occupational choice or not. Participants were free to take into account different criteria often used when considering a job (employability, remuneration, prestige, job security, career prospects). By the aforementioned differentiation of terms used (i.e. suitability vs "goodness"), it was indirectly solicited from the participants to also consider the impairment in their judgement. The results showed that occupations requiring high written-language skills were evaluated as "good" for children without dyslexia but less suitable for children with dyslexia. The exact opposite trend was observed for occupations having lower such requirements. Another noteworthy result is the discrepancy between the ratings obtained from counsellors and those from parents: while both groups provided similar ratings for children without dyslexia, substantial differences were recorded when rating the suitability of these same jobs for dyslexic children. This different pattern of cognitions is discussed herein, and their connection with parental expectations and aspirations is analysed, while contrasted with shifts due to counsellors' stereotypical views.

Keywords: dyslexia, children with and without dyslexia, occupational competence, parents' cognitions, school career counsellors' cognitions, school career counselling

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Introduction

The conditions under which people make their own career choices are rarely optimal, and this is especially true for individuals with disabilities. Unfortunately, although a great deal is known about career-related decision-making processes involving people without disabilities, remarkably little research is done concerning individuals with disabilities. This is all the more remarkable given the need for such research. Children with disabilities face complex, education-related challenges that, inevitably, affect their successful transition from school to work. Indeed, for children with disabilities, compared to their non-disabled peers, career issues are far more problematic.

The present study does not examine the exact manner that different career decision-making models deal with disability. This could be either just a factor incorporated into some generalised career decision-making models, or discreet models specifically for the people with disabilities. Irrespective of which one of the (above) two categories

they belong to, all such models agree that career decision-making is a complex process where different factors such as: gender, socioeconomic status, family structure, self-efficacy, level of education, age, and disability status play a part (Hitchings et al., 2001).

Using different theoretical frameworks, three prominent theorists, namely Donald Super, Ann Roe, and John Holland, made great contributions, forming the field of career development. They all emphasised the effect that different factors have on children's career aspirations. Such factors were: gender, sense of competency and self-efficacy, whereas parental expectations were always considered central by all three.

Parents are a source of numerous influences on their children: genetic, social, and psychological. A great deal of child development, including career development, is attributed to these influences. Parental cognitions influence child development, and all researchers agree on that conclusion, albeit by using different terms to describe the cause (i.e. parental "thoughts", "beliefs", "theories", "ideas", "attributions", "perceptions" etc.). The consensus is that parental cognitions do matter as they influence parental behaviour, their children's cognitions, and the way parents and children interact with each other (Sigel & McGillcuddy-De Lisi, 2002).

Parental cognitions and parental behaviour concerning children's career development have previously been highlighted in many studies (e.g., Bennett & Hay, 2007). Nevertheless, the exact effect that parental cognitions/behaviour exerts on children's career development, as well as the extent to which this impact is exerted, remains a complex issue that is still to be clarified (Whiston & Keller, 2004). Furthermore, in the majority of the studies investigating the role played by parents, only samples of children with no known disability have been used (Young & Friesen, 1992). That explains why our knowledge on parental role in career development of children with disabilities remains weak.

Rounding up experimental evidence, there are strong indications that parental behaviour is highly influential during their children's educational and career transitions (Koumoundourou, Tsaousis, & Kounenou, 2011; Kounenou, 2011; Mortimer, Zimmer-Gembeck, Holmes, & Shanahan, 2002). Indeed, it has been established that parents are the main interlocutors, in the discourse with their adolescent children, about their careers (Otto, 2000), as well as important providers of information regarding career options and suitability of careers (Seligman, Weinstock, & Owings, 1988).

One area in which parental behaviour appears to be extremely influential is the formation of their children's aspirations and expectations. To avoid confusion, it is worth noting the highly inconsistent usage of the terms "expectations'' and "aspirations" amongst various authors, before proceeding to an appraisal and consolidation of relevant articles on this subject. Typically, "parental expectations" refer to parents' realistic beliefs or judgements about their children's competencies, academic capabilities, and future achievement, as reported, for example, when parents are asked about how far they expect their child to go in school (Catsambis, 2001; Goldenberg, Gallimore, Reese, & Garnier, 2001; Kaplan, Liu, & Kaplan, 2001; Patrikakou, 1996; Trusty, 2002). These expectations are largely based on their children's school-grades and their general level of achievement (e.g., Glick & White, 2004; Goldenberg et al., 2001). On the contrary, authors agree less on the meaning of the term "parental aspirations". While it generally signifies parents' wishes or goals about their children's future attainment, it is very frequently confused with the notion of "parental expectations", which albeit intricately intertwined, is subtly different. In fact, parental aspirations are based upon the value parents themselves place upon education, as well as the value that one's community places on schooling, with its well-documented implications for personal and professional success (Creed, Conlon, & Zimmer-Gembeck, 2007). In this sense, the term "parental aspirations" is to be con-

trasted with that of "parental expectations" which, instead, refers to constructs formed on a realistic basis (Rojewski, 2005, p. 134). Yet, despite their conceptual differences, the two terms "expectations" and "aspirations" are often used interchangeably in some of the literature (e.g., Fan & Chen, 2001).

The literature review of the expectations-related studies reveals strong associations between parental expectations and aspirations and children's expectations and aspirations; although the distinction between the two notions, as mentioned before, has not been sufficiently recognised (Benner & Mistry, 2007; Phillipson & Phillipson, 2007; Rutchick, Smyth, Lopoo, & Dusek, 2009; Trusty, 2002; Yamamoto & Holloway, 2010).

It has even been shown that parental expectations are, by a substantial margin, a causal determinant in student expectations and academic outcomes. They also are the strongest family-level predictor of a student's potential achievement, over and above the contribution made by other parental beliefs and behaviour (see e.g., Yamamoto & Holloway, 2010).

Different pathways exist in which these expectations are conveyed to the children foremost, among which, is the well-documented involvement of parents in their children's academic achievement (for a review, see e.g., Pomerantz, Moorman, & Litwack, 2007). This involvement may be either direct (e.g., parents verbally communicating to their children the value they themselves place on achievement), or indirect (as for example, parents involving children in academic activities they themselves value, whilst providing assistance to children during the execution of these activities) (Hoover-Dempsey et al., 2005; Trusty, 2002). Children, in their turn, internalise these values as a standard that they struggle to attain.

Alternatively, the influence of parental expectations can be exerted on their children's level of achievement via explicit or implicit messages sent to them concerning their perceived abilities and capabilities. These messages boost children's competence and academic self-efficacy beliefs (Eccles Parsons, Adler, & Kaczala, 1982). According to Eccles Parsons et al. (1982), parents are "expectancy socialisers", in the sense that they serve as important socialisers of competency beliefs.

The notion of competency represents a key factor in our understanding of the complex mechanism that underlies the relationship between expectations and academic achievement. Parental expectations about their children's occupational development are essentially based on an evaluation of their children's competencies, as largely reflected by their achievement; on the other hand, parents' expectations reinforce their children's sense of being competent, which, in turn, leads to higher achievement. There exists, therefore, a noteworthy interplay between parental expectations and their children's achievement. Parental expectations are not only based on their children's course grades and their general level of objective achievement; parental expectations are also largely reflected in them (e.g. Goldenberg et al., 2001).

Thus, parental expectations are regarded as an "environmental press" within which children are compelled to meet parental standards (Marjoribanks, 1972). Powerful evidence exists showing that students who are more likely to reach higher levels of achievement and to persist longer in school are those whose parents hold high expectations, when compared to cases in which parents hold lower expectations (Yamamoto & Holloway, 2010).

By providing their children with an environment rich in challenges and encouragement, parents communicate realistic expectations and promote positive competency perceptions, thus increasing the likelihood of high achievement (Leondari & Gialamas, 2002).

Competencies and Career Barriers in Children – Either With or Without Disabilities

Competencies represent one of the most important factors, upon which career decisions are made. Areas of self-inquiry, then, as reflected in the questions: "What am I good at?" (i.e. competencies), "What do I like to do?" (i.e. personal interests) and "What do I think is important?" (i.e. values) are, according to the principal theories of career development, the determinants of career decision-making (Hackett & Betz, 1981). Adolescents (i.e. 14 years and onwards) base their career aspirations, according to Gottfredson's (1996) four-stage career development model, on competencies, interests, and needs. This fourth stage of the aforementioned model comes after the third stage (9–13 years), during which children seem to aspire to occupations based on social value and social status.

In fact, there is ample evidence that adolescents' educational and occupational expectations are based on realistic considerations associated with their academic achievement. Moreover, adolescents' expectations, as also those of their parents, who at that precise time understandably become more concerned about their children's educational choices, can be predicted by their academic achievement (Hossler & Stage, 1992; Schnabel, Alfeld, Eccles, Köller, & Baumert, 2002).

Adolescents, however, may perceive a substantial number of barriers in their way to fulfilling their career aspirations, expectations, and goals. These barriers include: ethnic and gender discrimination; personal factors, such as lack of ability or lack of specific skills; environmental and attitudinal factors, such as lack of finances, negative attitudes, and lack of educational opportunities (Luzzo, 1995; McWhirter, 1997; Swanson, Daniels, & Tokar, 1996).

According to a definition of career-barriers by Swanson's and Woitke (1997), these are "events or conditions, within the person or in his or her environment, that make career progress difficult" (p. 434). Social Cognitive Career Theory proposes that, when people perceive their efforts to be impeded by adverse personal and, in particular, environmental factors (e.g., insurmountable barriers or inadequate support systems), they are less likely to translate their career interests into goals, and their goals into actions (Lent, Brown, & Hackett, 1994).

The process of career choice among specific populations, such as women and ethnic minorities, was the focus of initial studies in career barriers (e.g., Luzzo, 1995; Luzzo & McWhirter, 2001; Swanson & Woitke, 1997). The aforementioned career barriers construct, also appears to be particularly relevant to individuals with disabilities. Some such barriers are said to be external, since they involve environmental and workplace supports, including transportation, accommodations, and job opportunities. Other barriers are referred to as internal, since they involve the principal determinants for career choices and development, including self-perceptions, work skills and vocational beliefs (Corbière, Mercier, & Lesage, 2004).

The literature review reveals that a considerable amount of work has been done with people with a hearing loss, deaf or hard of hearing. For many people with hearing loss, the functional effects of their impairment, as well as the negative attitudes of people around them, do create actual career barriers (Punch, Hyde, & Creed, 2004). In addition, there are perceived barriers: those by the young people themselves, and by significant others such as parents, teachers, and potential employers. All those are associated with their disability, and in most cases limit their accessibility to many occupations (Weisel & Cinamon, 2005).

Difficulties Encountered During Career Decision-Making by People With Learning Disabilities

Perhaps somewhat surprisingly, the question as to which types of barriers affect the aspirations and expectations of young children and adolescents with learning disabilities and to what extent they do so, has not been adequately

explored to date. The effect on their parents' aspirations and expectations has not been researched either. The term "Learning Difficulties" (LDs) is generic and refers to a heterogeneous group of disorders ranging from mild to severe, which affect the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical skills (Chen & Chan, 2014; Cummings, Maddux, & Casey, 2000).

A specific learning disability sub-group, namely that of "Reading Disabilities" (RDs), is particularly relevant to the aims of the present study. Individuals with reading problems, manifested by specific difficulties in acquiring basic reading sub-skills, such as word identification and phonological (letter-sound) decoding, with regard to what is expected of them given their age, intelligence, and education, are referred to as having RDs. The above-described difficulties have been estimated to occur in approximately 10-15% of school-aged children. The pattern of these symptoms is called dyslexia, or, alternatively, specific reading disability, with the two terms often being used interchangeably (see e.g., Vellutino, Fletcher, Snowling, & Scanlon, 2004).

Children with dyslexia tend to have at least average intelligence and, as children with other types of LD, even appear quite gifted in certain areas such as music, art or physical skills (Smith, 1995).

Based on all of the above, the importance of investigating career barriers in children with LDs or RDs is clear. Consequently, the fact that limited research has been conducted to date, on the relationship between impaired competencies, career barriers, career expectations and/or aspirations and career choice, remains perplexing. Although some research on career choice by LD children, adolescents and adults has already been published, surprisingly little work has been done specifically for children and adolescents with dyslexia.

Children with higher abilities seem to have higher career aspirations, greater school achievement, and greater interest in academic and professional careers. They also exhibit more career-related knowledge, and seem to be aware of a wider range of career options than average (see e.g., Creed et al., 2007). On the contrary, young people with learning disabilities face greater barriers to academic achievement in comparison with their peers. Poor reading skills, test anxiety, difficulties related to memory and attention span during the execution of academic activities, and slow processing speed are some of the problems that lead students with learning disabilities to exhibit lower levels of achievement in school (Chen & Chan, 2014).

Low academic performance and experiences of failure erode the self-concept of students with LDs, and consequently affect their overall academic achievement (Hampton & Mason, 2003). As a result, teachers of those children lower their expectations, which functions as another barrier for these students, further hindering their already poor academic skills (Chen & Chan, 2014; Gregg, 2007). What little research has been conducted up to now provides evidence that low attainment, resulting from poor reading and spelling skills, decreases the educational expectations of both children with RDs and their parents (Kiuru et al., 2011; Rimkute, Torppa, Eklund, Nurmi, & Lyytinen, 2014; Snowling, Muter, & Carroll, 2007).

Poor academic skills inevitably result to poor performance in class, which in turn diminishes the skill level attained by the student. This appears to be associated with poor school engagement (Skinner, Zimmer-Gembeck, & Connell, 1998). Indeed, a high risk emerges for either early school attendance termination (Blackorby & Wagner, 1997) or exclusion from access to a curriculum rigorous enough to ensure post-secondary success (Gregg, 2007). Thus, it is hardly surprising that LD students in secondary schools lag behind their non-LD peers, with respect to rates of graduation and post-secondary enrolment (Blackorby & Wagner, 1997).

Summing-up, actual and/or perceived limitations in ability, widely implicated in low educational performance and haphazard development, do function as barriers in occupational aspirations and eventual achievement for children with learning disabilities.

According to Gottfredson's theory of circumscription and compromise (1981, 1996), individuals under pressure from career barriers, often compromise their career goals by opting for career alternatives less attractive than their original, preferred choices, for the sole reason that their original choices can be less easily attainable. On the contrary, the relationship between barriers and adaptive career functioning may not be straightforward, since, in some cases, barriers, although usually negative, appear to function instead as motivational factors leading to higher achievement (Lent, Brown, & Hackett, 2000). However, for the most part, any barriers, whether perceived or real, are both crucial according to Gottfredson (1981, 1996) and other researchers (Swanson & Woitke, 1997). They cause a compromise of goals, which can impair individuals' career development and exert a negative impact on vocational decisions (Lent et al., 2000).

Considering that all the above concern the non-learning-disabled, it is hardly surprising that individuals with LD are not exempt from the consequences of the particular barriers posed to their career decisions, and outcomes thereof. On the contrary, this is even truer for LD individuals. Indeed, the review of career development research for children with LD indicates that the majority of children with LD often opt for less skilled occupations and, in general, are less likely to succeed in their careers than their typically developing peers (Chen & Chan, 2014).

Specifically regarding dyslexia, in their 1984 study, Gottfredson, Finucci, and Childs observed that, unlike men without disabilities, of equally high intelligence and social background, men with dyslexia rarely became lawyers, physicians, or college teachers. Moreover, they showed that although many of them were considered as having quite successful careers, their career routes would have probably not been the same if no dyslexia was involved. According to their findings, most became managers, an evidently lucrative career option blatantly avoiding any demanding reading and writing skills. These individuals, by making these choices, took advantage of other non-academic skills that they may have, such as being persuasive and motivating. Alston, Bell, and Hampton (2002) showed that occupational choices of dyslexic students are related to blue-collar jobs and especially to manufacturing, which is considered as the traditional area of employment for persons with learning disabilities. In white-collar career fields such as science, technology, and engineering, individuals with learning disabilities are severely underrepresented (Alston et al., 2002). Moreover, in their 2003 study, Taylor and Walter showed that, compared with adults not reporting symptoms of dyslexia, adults with such symptoms were more likely to be involved in people-oriented professions such as nursing or sales, and much less likely to be involved in professions such as science/computing, management, and finance. These results suggest significantly different patterns of occupation choice for dyslexics.

However, that does not seem to be the whole story, since continuing research investigating learning-disabled adults' career development shows successful career outcomes, despite persistent difficulties in cognitive and affective domains. Fink (2007) reported data from research on 60 highly accomplished people with dyslexia, facing severe difficulties with reading, writing, and spelling, who succeeded in professions with heavy requirements in sophisticated reading (e.g., medicine, law, business, psychology, education, arts, science and mathematics), and this despite having been repeatedly discouraged to pursue such disciplines.

According to her findings, these individuals developed high-level literacy and other sophisticated skills by means of avid and extensive reading focused on specific subjects. These subjects were found to satisfy these individuals' passionate, personal interest.

The Effect of Learning Difficulties and Dyslexia on Families and School

Parents, teachers, counsellors and school administrators, are the key individuals who assist students in finding their way in the world of work experience.

These same individuals, however, may hinder the career and limit personal and academic development of people with LDs, if they have misunderstood the nature of this kind of disabilities. In fact, many myths and stereotypes have been endorsed, relating to the nature and the impact of LDs. As Spear-Swerling and Sternberg (1996, p. 308) point out, being labelled as reading disabled is a serious matter, because even that label alone is sufficient to alter expectations by teachers and parents alike, as they often consider any child so-labelled as having an immutable 'defect'.

Indeed, the effect of a learning difficulty on families seems to be similar to that of a physical illness. It could even be that the stress on parents is more troublesome when the disability is a hidden one, as a learning disability is. Referring especially to dyslexia, Hartwig cites the 1969 work of Kubler-Ross that traces the "typical reaction of stress placed upon us when dealing with our emotions" (Hartwig, 1984, p. 315): when a child is diagnosed as having dyslexia, the parents experience denial, according to the first of the five grief stages; namely denial, anger, depression, bargaining, and acceptance/hope. By applying these stages to an educational setting, Harwell (2001) renames the stages as emotional stages, which are the following: shock/denial; anger/guilt/blaming; resignation; depression; acceptance.

On the other hand, investigating the way teachers deal with learning difficulties in school, Tournaki (2003) showed how influential the LD label could be in teachers' prediction about future academic success of a student with a reading level below average. For an equal reading level, middle school teachers predicted a lower academic success for a student with a LD label, than for a student without such label. Likewise, Clark (1997) showed that primary school educators believed that students with LD are more susceptible to fail than students without LD. This was based on the assumption that LD is an internal, stable, and uncontrollable condition, and resulted in showing higher reward, lower anger, higher sympathy, and especially in having lower expectations for future success. Thus, children with LDs risk to be misunderstood by their teachers and be judged, not on their attributions and their characteristics, but on the basis of their LD label (Lackaye & Margalit, 2006; Tournaki, 2003; Woodcock & Vialle, 2010).

These myths and stereotypes individuals with LDs are frequently confronted with, are a source of discriminative practices in the classroom, as well as in the workplace (see Castellanos & Septeowski, 2005). In addition to the effect of the disability itself, these discriminative practices constitute substantial barriers to these individuals' career development. Assumptions related to low intelligence are among the most pervasive and damaging misunderstandings about an individual with LDs. As noted before, however, people with LDs have average to above-average intelligence and some of them may be quite gifted in certain areas (music, art, or physical skills). Another assumption is related to the nature of LDs. Many people, ignoring that there are different number of types of LDs as well as major individual differences in severity, impact, and age of onset, are often led to believe that all LDs are the same (Castellanos & Septeowski, 2005).

Thus, providing proper support to students with LDs is effectively impossible without specific knowledge about LDs and, consequently, a good understanding of the special academic, personal, social, and career needs and challenges of individuals with LDs.

The first who have to display this understanding are parents who are generally recognised as the principal information providers concerning careers as well as the main psychosocial support-providers (Sidiropoulou-Dimakakou, 1995; Sidiropoulou-Dimakakou, Mylonas, & Argyropoulou, 2003; Whiston & Keller, 2004). Indeed, we have emphasized the impact of parents' cognitions on their children's socio-emotional development with respect to self-efficacy beliefs, particularly relevant to career decision-making self-efficacy. Taking into account the low self-efficacy beliefs of learning-disabled and dyslexic children, it is hardly surprising that the effect exerted by parental cognitions concerning their learning-disabled children career development may be even more significant.

The Present Study

The purpose of the present study was to explore what parents of children with dyslexia and school career counsellors think about the possible career options of a child with dyslexia.

To our knowledge, there is no previous research relating to this topic, whereas numerous studies on individuals' perceptions of the professional choices of the deaf have been conducted. Typically, in these studies, participants (most often parents and teachers) are presented with a list of occupations and are asked to indicate whether each occupation is suitable for a deaf person and for a hearing person (e.g., Parasnis, Samar, & Mandke, 1996) or whether they would recommend each of the listed occupations as a suitable occupation for the target person (deaf or hearing) (e.g., Hurwitz, Weisel, Parasnis, DeCaro, & Savir, 1997). In order to assess the extent to which cultural differences could affect such evaluations, several studies, following these procedures, were conducted in different countries such as: England (DeCaro, Evans, & Dowaliby, 1982), Italy (Maruggi, 1983), South Africa (Naidoo, 1985), the United States (Naidoo, 1989), India (Parasnis, DeCaro, & Raman, 1996), Israel (Hurwitz et al., 1997), Sweden (DeCaro, Mudgett-DeCaro, & Dowaliby, 2001) and Greece (Birba & Lampropoulou, 2003).

The rationale and the methodology used in the present study are inspired by those of the aforementioned studies, with some notable differences concerning the instruments used. More specifically, to tap participants' cognitions of the occupational competence of a dyslexic child, a new instrument was developed. This is similar to the Evaluations of Occupational Competence (EOC) scale used in the 2005 Weisel's and Cinamon's study, which in turn, consisted of a modified version of Sela and Weisel's (1992) 17-item tool. The study investigated possible gender effects on individuals' attitudes towards occupational competence of deaf participants (deaf and hard-of-hearing [D/HH] on the one hand, and hearing high school students on the other); the suitability of 25 occupations for deaf men and deaf women was thus rated. The participants had completed the questionnaire twice: once with deaf male adults as the target and once with deaf female adults as the target.

In the present study, a total list of 28 occupations was formed. For the selection of the occupations included in the list, the Statistical Classification of Occupations (STEP-92) from the Official Statistical Yearbook of Greece of 2009 was used. This classification provides a system for an aggregation of information on occupations, either from census and surveys or from alternative administrative sources. For this, 40 occupations were selected from among the 10 major categories, forming 10 cumulative groups: 1. Legislators, senior officials, and private sector managers 2. Individuals engaged in scientific, artistic, and related occupations. 3. Technicians and associated professionals 4. Clerks and related office workers 5. Service workers and shop assistants 6. Skilled agricultural

and fishery workers 7. Crafts and related trades 8. Fixed industrial plant workers, machine operators, assemblers, and fitters 9. Unskilled manual workers of a general kind, handymen, and small tradesmen 10. Armed forces and soldiers. For each of these ten large cumulative, professional groups, a detailed and a brief description were provided focusing on the exact occupations included in each of these groups, as well as their characteristics.

Having in mind that the essential criterion for the classification was the extent to which the reading ability might be considered as a critical skill for an occupation, two judges evaluated each of the 28 occupations to assess their written language requirements (i.e. low vs. medium vs. high). The two judges classified the occupations into three groups and reached a 100% level of inter-judge agreement, after they resolved some disagreements through discussion. Three EOC categories were thus formed: nine occupations that required extensive use of written language; nine occupations that required a mediocre use of written language; and 10 occupations that held low-written language requirements.

Participants completed the questionnaire, once for non-dyslexic children, and once more for dyslexic children forming the target-group. In contrast, however, to the Weisel and Cinamon's (2005) study as well as all other related studies where the same word "suitable" was used, in the present study the question posed to the participants was slightly differentiated if the child in question was dyslexic.

Given that, a priori, an individual without any impairment (physical or cognitive) can opt for the occupation he/she prefers if he/she is qualified for, we can hypothesize that, overall, every occupation is a suitable one for him/her. An occupation, however, does not necessarily correspond to a "good" choice, if we take into account the different criteria each one of us would use when considering a job, as for example: employability, remuneration, prestige, job security, career prospects. On the contrary, for a child with dyslexia, a hypothetically "good" professional choice could be, at the same time, an inappropriate choice if the course of the profession required systematic or even extensive use of written language. For this precise reason, when dyslexic children formed the target-group, all participants were indirectly solicited to consider the impairment, and this was enhanced by modifying the question we asked to "suitable".

Possible barriers or future difficulties when performing a particular occupation would, thus, come into play when considerations of suitability were made. Summarising, when non-dyslexic children were the target-group, participants were asked if each of the occupations listed might be a "good" occupational choice. For the children with dyslexia, participants were asked to consider the potential limitations posed by dyslexia, to satisfactorily perform each occupation proposed by asking if it was "suitable".

Each questionnaire was followed by a question asking participants to indicate the best occupation (for non-dyslexic children forming the target-group) and the most suitable (for dyslexic children as the target-group). Another question inquired the occupation they would not advise a child without dyslexia to choose, and a child with dyslexia, respectively. Participants were asked to give reasons (i.e. arguments) for their choices, which permitted the researchers, (1) to make sure that participants had understood the differentiation between the two terms "good" and "suitable", and (2) to further investigate the basis of their choice.

As there is no prior research on other people's cognitions concerning the occupational competence of children with dyslexia, concrete hypotheses cannot be formulated. We will address some research questions grounded partly on findings from studies that, though not on the specific topic, are still relevant to the present study. We refer, specifically, to cross-cultural studies which have investigated individuals' attitudes towards deaf people's

career choices that showed lower EOCs for deaf people than for hearing people. This finding, along with the evidence of prior studies related to the present study that parents and teachers hold low expectations for academic achievement by dyslexic children (Kiuru et al., 2011; Patrikakou, 1996; Rimkute et al., 2014; Snowling et al., 2007), allow us to assume that participants' attitudes towards these children's career choices will differ from those towards career choices for children without dyslexia. Differentiations in participants' EOCs as a function of the Target-Group (dyslexic / non-dyslexic children) will help us verify the plausibility of the previous assumption. The Target-Group is the first factor to be manipulated in this study. The class-groupings of the occupations under investigation will allow us to obtain a more precise picture of the possible differentiations in participants' EOCs. The Occupational Category (low / medium / high) is the second factor to be manipulated. Last, differentiations in participants' EOCs as a function of the "Rater's Status" (i.e. which group did the rater belong to) will be also explored. The "Rater's Status" (parents / school career counsellors) is the third factor to be manipulated. Interactions between these three factors will be also investigated. When all the above were taken into account, the following research questions were addressed:

a. To what extent the Target-Group will differentiate participants' EOCs?

b. To what extent participants' EOCs will be differentiated as a function of the Occupational Category?

c. To what extent participants' EOCs will be differentiated as a function of the Rater's Status?

d. To what extent the Target-Group will draw a distinction between the distribution of the participants' EOCs into the three occupational categories?

e. To what extent the distribution of the participants' EOCs into the three occupational categories will be affected by the Rater's Status?

f. To what extent one could distinguish, for each target-group, between the distributions of parents' and counsellors' EOCs, amongst the three occupational categories?

Method

Participants

A sample of 56 parents of children with dyslexia and 60 School Career Counsellors participated in the study. The Parent Group (PG) sample consisted of 34 women and 22 men, while the School Career Counsellors Group (SCCG) consisted of 36 women and 24 men. Participants' ages ranged from 25 to 60, with the majority of them falling between 46 and 60. All of them lived and worked in a Patras, a fairly large provincial town.

Parents Group (PG)

The group of parents comprised members of the Association of Parents of Children with Dyslexia, located in the town of Patras. The condition for the entry to the Association is to have a child officially diagnosed with dyslexia. Children's ages ranged from 9 to 18, while the great majority of them (70%) were between 13 to 18. Considering parental educational level, we discover the great majority (76.8%) having a bachelor degree, while their socio-economic status (SES) was medium to high.

School Career Counsellors Group (SCCG)

The group of SCC comprised two sub-groups: the first one consisted of 14 career counsellors who worked at the specialised School Career Counselling Offices (GRA.S.E.Ps); the second one consisted of 46 school advisors, responsible for the school career counselling as it is implemented in the framework of the school curriculum. These advisors worked at Greek Secondary Vocational Education schools in the region of Patras. The majority of them (48.3%) had between 11 and 20 years of experience, whereas 21.7% under 10 years, 25% between 21-30 years and only 5% more than 30 years. Ten of them had a master's degree and only one, a Ph.D. These two sub-groups differ, not only with respect to the quantity of training they have received, but also with respect to the target-group of their career counselling. In fact, counsellors working at GRA.S.E.Ps had received a more extended training than those of the other sub-group, since the specific training Program for Counselling and Guidance, offered by the School of Pedagogical and Technological Education in Greece, was attended by all of them. Yet, none of these sub-groups had received a special training concerning individuals with learning disabilities or dyslexia. In addition, counsellors working at GRA.S.E.Ps provided services not only to students but also to parents. This was a convenient sample, however, since the number of counsellors working at GRA.S.E.Ps was rather limited, thus preventing us from forming two homogeneous sub-groups of counsellors. Despite the above-described differences, the generic term "School Career Counsellors Group" (SCCG) will be used throughout this article.

Research Material

Two instruments were employed. First, to gather background information (e.g., age, gender) of the participants, a demographic questionnaire was used. Second, to measure participants' cognitions of the occupational competence of children with dyslexia, an instrument was especially developed for this study. This was done along lines similar to the "Evaluation of Occupational Competence" (EOC) scale devised by Weisel and Cinamon in their 2005 study, which in turn consisted of a modified version of Sela and Weisel's (1992) 17-item tool. According to the EOC scale, participants are asked to indicate the suitability of each of a set of occupations listed therein. For the purposes of the present study, a total of 28 occupations were listed (for details, see p. 12). According to the criterion of the extent of written-language use required, each one of the 28 occupations was further distributed into three occupational categories (low vs. medium vs. high). The high category included the following occupations: Teacher, Architect, Attorney, Military officer, Economist, Medical Doctor, Electrical Engineer, Web Designer, Computer analyst/programmer, Company Manager. The medium category included the following occupations: Nurse, Customer Service Officer, Artist, Accountant, Physiotherapist, Office Clerk, Interior/Decorator, Insurance Salesman, Advertising and PR manager. The low category included the following occupations: Hairdresser/Beautician, livestock farm worker, Plumber, Merchant, Driver, Cook, Baker/Confectioner, Bricklayer/Construction Worker, Machine Operator and Salesman.

Participants were asked to complete the "scale of occupational competence" twice, that is for children without dyslexia as the target, and once more for dyslexic children as the target. More specifically, participants had to indicate whether each of the proposed occupations: (1) would be a "good" occupational choice for a child without dyslexia and (2) would be a suitable choice for a child with dyslexia. The participants were asked to rate the occupations on a five-point Likert scale that ranged from "5 -i.e. not at all" to "1 -i.e. very much". The order of the 28 occupations was randomised so as to minimise suggestive spill-out to similarly-rated occupations, which were located near them on the same class.

The question asked to each participant, on top of the questionnaire concerning children without dyslexia, was as follows: "Please express your free opinion as to **How "Good"** might each of the following jobs be, for **a child**

without dyslexia". For the questionnaire concerning children with dyslexia as the target-group, the corresponding question was: “Please express your free opinion as to **How Suitable** might each of the following jobs be, for **a child with dyslexia**”.

In order to emphasise the semantic differentiation of the key-terms “good” and “suitable”, the two terms were in bold and underlined. Participants were instructed to pay special attention to the semantic differentiation between the two terms and consequently to take into account the notion of limitations implied by the term “suitable”.

According to the design of the research, participants, after they had completed rating each job in the questionnaire, were asked an additional question. For the questionnaire concerning children without dyslexia, the question was: “For a child without dyslexia, which of the professions listed above would you consider as the best occupational choice, and which would constitute a choice that you would not advise? List below the names of the professions and the reasons behind each individual choice.” For the questionnaire concerning children with dyslexia, the main question was: “For a child with dyslexia, which of the professions listed above would you consider as the most suitable occupational choice, and which of the above would constitute a choice that you would not advise? List below the names of the professions and the reasons for your choices.”

We believe that participants’ responses to this additional question will help us interpret the findings from the questionnaire by giving us insights into the way participants think in order to suggest specific occupations, as well as, into their line of reasoning when recommending or advising against a particular occupation.

Procedure

The participants, after having been given the questionnaires, were asked not to write any identifying information on their completed questionnaires. They were also encouraged to fill out the questionnaire in the privacy of their homes, while their attention was drawn on the fact that they should avoid discussing the questionnaires with others (and in particular with other participants).

Results

The results of the study are presented in two sections: In the first, the results of the quantitative data analysis are presented, whereas the second presents a qualitative analysis of participants’ responses to the open-ended questions of the questionnaires.

The Analysis of the Quantitative Data

A 3x2x2 mixed factorial ANOVA was conducted with 2 within-subjects factors: the Target-Group (dyslexic / non-dyslexic children) and the Occupational Category (low / medium / high) and 1 between-subjects factor: Rater’s Status (parents / school career counsellors).

Before running the ANOVA, we calculated the internal consistency index Cronbach’s alpha of each of the occupational categories for each of the two different target-groups. The low occupational category consisted of 10 items, while the medium and the low consisted of nine. For non-dyslexic children, Cronbach’s alpha for the low occupational category was 0.93, for the medium occupational category it was 0.90, and for the high occupational category it was 0.88. For dyslexic children, Cronbach's alpha for the low occupational category was 0.87, for the

medium occupational category it was 0.78 and for the high occupational category it was 0.84. Thus, all occupational categories were found to be highly reliable.

Subsequently, a power analysis was conducted for the factorial ANOVA test by using the G*power statistical software. Thus, we estimated that the minimum required sample size for the factorial ANOVA, with six repeated measures (2x3) and one between-subjects factor (2 groups), is 124 subjects, given the following assumptions: error probability α = 0.05, effect size = 0.25, power = 0.95, and correlation among repeated measures = 0.5. Our sample consisted of 116 subjects, which is a number of subjects close to the required one.

Lastly, Mauchly's Sphericity test was used to examine the validity of the assumption that the error covariance matrix of the orthonormalised transformed dependent variables are proportional to an identity matrix for the cases of: 1. the Occupational Category and 2. the interaction Target-Group by Occupational Category. According to the results, the null hypothesis is rejected in both cases (Occupational Category, $\chi 2(2, N = 116) = 41.22$, $p < .001$, while for the interaction Target-Group by Occupational Category, $\chi 2(2, N = 116) = 43.64$, $p < .001$. Therefore, in the following ANOVA tests, degrees of freedom were calculated using the Greenhouse-Geisser correction.

For all ANOVAs, effect sizes were computed using a partial eta-square ($\eta 2p$). We used an alpha significance level of 0.05 for all statistical tests.

The ANOVA revealed a significant main effect of Target-Group ($F(1, 114) = 48.82$, $p < .001$, $\eta 2p = 0.30$) because overall, participants' ratings for children without dyslexia were higher than those for children with dyslexia ($M = 4.38$, $SD = 0.09$) vs ($M = 3.88$, $SD = 0.06$) (see Table 1).

Table 1

Means, Standard Deviations and 95% Confidence Interval of Ratings by Target

			95% CI	
Target	***M***	***SD***	***LL***	***UL***
Child without dyslexia	4.38	0.09	4.21	4.55
Child with dyslexia	3.88	0.06	3.75	4.00

Note. CI = confidence interval; *LL* = lower limit, *UL* = upper limit.

A significant main effect of Occupational Category ($F(1, 114) = 5.16$, $p = .01$, $\eta 2p = 0.04$) was also observed, indicating that the three occupational categories were different in terms of ratings: Ratings were higher for the medium category ($M = 4.22$, $SD = 0.07$) than for the low category ($M = 4.16$, $SD = 0.08$) and, for the high category ($M = 4.02$, $SD = 0.07$). However, pairwise comparisons showed that only the comparison between ratings for the medium category and for the high category differed significantly ($p = .002$) (see Table 2). The main effect of Rater's Status was not significant.

Table 2

Means, Standard Deviations and 95% Confidence Interval of Ratings by Occupational Category

			95% CI	
Occupational Category	***M***	***SD***	***LL***	***UL***
Low	4.16	0.08	4.00	4.33
Medium	4.22	0.07	4.07	4.36
High	4.02	0.07	3.89	4.15

Note. CI = confidence interval; *LL* = lower limit, *UL* = upper limit.

Moreover, a significant interaction between Target-Group and Occupational Category was found ($F(1, 114) = 142.76$, $p < .001$, $\eta 2p = 0.55$), reflecting an increase in ratings from the low category to the high category for children without dyslexia: ratings for the low category ($M = 4.0$, $SD = 0.11$), for the medium ($M = 4.37$, $SD = 0.10$) and for the high ($M = 4.77$, $SD = 0.09$). In contrast, for children with dyslexia the opposite pattern was observed, namely a decrease in ratings from the low category to the high: ratings for the low category ($M = 4.32$, $SD = 0.08$), for the medium ($M = 4.06$, $SD = 0.07$) and for the high ($M = 3.27$, $SD = 0.09$) (see Table 3).

Table 3

Means and Standard Deviations and 95% Confidence Interval of Ratings by Target and Occupational Category

	Child without dyslexia				**Child with dyslexia**			
			***95%* CI**				***95%* CI**	
Category	***M***	***SD***	***LL***	***UL***	***M***	***SD***	***LL***	***UL***
Low	4.00	0.11	3.79	4.21	4.32	0.08	4.15	4.49
Medium	4.37	0.10	4.18	4.56	4.06	0.07	3.91	4.20
High	4.77	0.09	4.60	4.94	3.27	0.09	3.09	3.43

Note. CI = confidence interval; *LL* = lower limit, *UL* = upper limit.

The interaction between Rater's Status and Occupational Category ($F(1, 114) = 32.86$, $p < .001$, $\eta 2p = 0.22$) was also statistically significant. Parents (PG) provided their highest ratings to the medium occupational category ($M = 4.35$, $SD = 0.11$), lower ratings to the high occupational category ($M = 4.26$, $SD = 0.10$) and even lower to the low category ($M = 3.92$, $SD = 0.12$). School Career Counsellors (SCCG) provided their highest ratings to the low occupational category ($M = 4.41$, $SD = 0.12$), lower ratings to the medium occupational category ($M = 4.07$, $SD = 0.10$) and even lower to the high category ($M = 3.78$, $SD = 0.09$) (see Table 4).

Table 4

Means and Standard Deviations and 95% Confidence Interval of Ratings by Participants' Rater Status and Occupational Category

	Parents				Counsellors			
			95% CI				95% CI	
Categories	***M***	***SD***	***LL***	***UL***	***M***	***SD***	***LL***	***UL***
Low	3.92	0.12	3.68	4.15	4.41	0.12	4.18	4.64
Medium	4.35	0.11	4.15	4.57	4.07	0.10	3.87	4.28
High	4.26	0.10	4.06	4.45	3.78	0.09	3.60	3.97

Note. CI = confidence interval; *LL* = lower limit, *UL* = upper limit.

The interaction between Target-Group and Rater's Status was marginally significant ($F(1, 114) = 3.94$, $p = .049$, $\eta 2p = 0.033$), reflecting a difference in magnitude between the two groups' ratings regarding dyslexic children. Although the ratings from both groups for dyslexic children were lower than the ratings for children without dyslexia, this difference is greater for the SCCG than for the PG. For the SCCG: $M = 4.41$, $SD = 0.12$, 95% CI [4.17, 4.64] vs $M = 3.76$, $SD = 0.87$, 95% CI [3.59, 3.94] for non-dyslexic children and for dyslexic children, respectively; and for the PG: $M = 4.35$, $SD = 0.11$, 95% CI [4.11, 4.59] vs $M = 3.99$, $SD = 0.90$, 95% CI [3.81, 4.17] for non-dyslexic children and for dyslexic children, respectively.

Lastly, examining the triple interaction between Target-Group, Rater's Status and Occupational Category, this is seen to be marginally non-significant ($F(1, 114) = 2.73$, $p = .083$, $\eta 2p = 0.23$). However, the analysis of the interaction reveals two main rating patterns, one for PG and one for SCCG for non-dyslexic children on the one hand, and for dyslexic ones on the other. As can be seen in Figure 1, similar job-ratings are provided by both PG and SCCG for non-dyslexic children, both of which increase as we move from the low category to the high one. On the contrary, for dyslexic children (see Figure 2), PG and SCCG ratings differ as far as medium and low categories are concerned: PG gave their highest ratings to the occupations included in the medium occupational category and lower ratings to the occupations included in the low category. The opposite pattern was found for SCCG ratings; SCCG gave their highest ratings to the occupations included in the low category and lower ratings to the occupations included in the medium category. There is only one case where PG and SCCG ratings are compatible with each other, namely, the occupations included in the high category. Although, PG ratings were higher than those of SCCG, both ended up assigning to the occupations in this category their lowest ratings. This can probably justify why the triple interaction failed to reach significance.

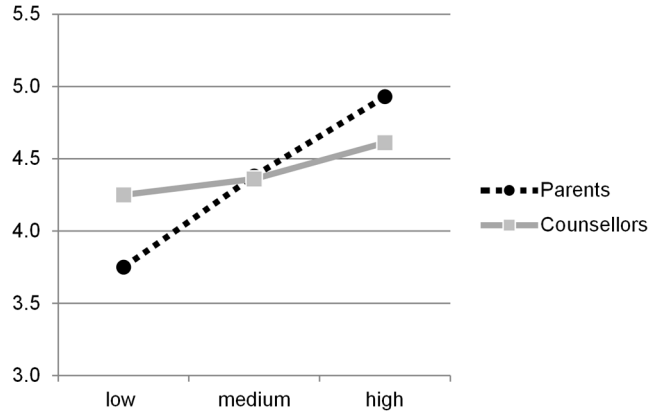

Figure 1. Distribution of parents' and counsellors' EOCs into the three occupational categories for a child without dyslexia.

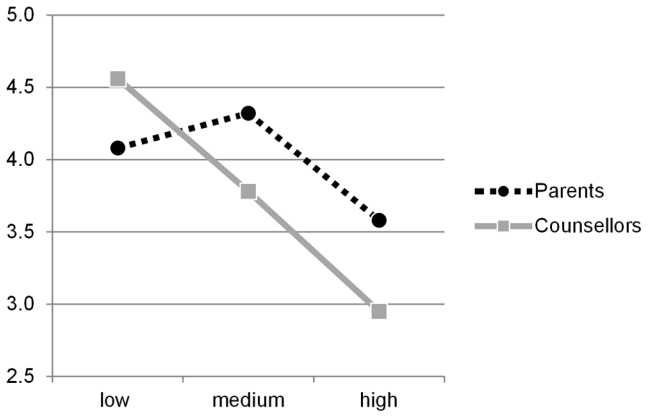

Figure 2. Distribution of parents' and counsellors' EOCs into the three occupational categories for a child with dyslexia.

Summing up the results of the data analysis, these suggest that participant ratings depended strongly on whether the target was a dyslexic child or a non-dyslexic one in that, ratings were significantly lower for the dyslexics. This was confirmed by the analysis of the interaction of the Target-Group (i.e. dyslexic or not) as a function of the Occupational Category. For a dyslexic child, occupations belonging to the high occupational category were rated lower than occupations belonging to the low occupational category. On the contrary, for a child without dyslexia, occupations belonging to the high occupational category were rated higher than occupations belonging to the low category.

Examining possible overall differentiations in ratings as given by the two groups of participants, we observed that PG and SCCG did not differ significantly. Indeed, there was no significant effect overall, depending on the Rater's Status. Nevertheless, SCCG seemed more affected by the Target-Group (i.e. dyslexic or not) than PG were, as demonstrated by the effect, albeit small, of Target-Group by Rater's Status interaction. As a function of the target-group, SCCG ratings appeared more differentiated than those of PG. That is, any difference between ratings for non-dyslexic children and dyslexic ones is more pronounced in the SCCG than in the PG group. In fact the in-depth examination of the marginally insignificant triple interaction between (a) Target-Group, (b) Rater's status, and (c) Occupational Category, was also reassuringly revealing. It shows that SCCG ratings for non-dyslexic

children on the one hand, and dyslexic children on the other, reflect precisely the pattern of participants' ratings as those seen when analysing the main effect of Target-Group. This is that the ratings for non-dyslexic children increase as we move from the low occupational category to the high one. On the contrary, when dyslexic children are the target-group, ratings decrease as we move from the low occupational category to the high one. This is not exactly the case for PG, whose ratings are quite similar to those of SCCG but only when non-dyslexic children are concerned. For dyslexic children, PG and SCCG rate those occupations included in the medium occupational category, and those in the low occupational category, in the exact opposite way. That is, PG considers the former as the most suitable occupations for dyslexic children, whereas SCCG, the latter occupational category. Yet, both groups consider occupations included in the high category as being the least suitable for dyslexic children, albeit not to the same degree.

Descriptive Summary of Responses to the Open-Ended Question of Each of the Two Questionnaires

The written responses, by parents and counsellors for the open-ended question of each of the two questionnaires, were collected and analysed. We calculated frequencies for each of the occupations suggested by each group of respondents, as well as frequencies for each of the reasons for recommendation or non-recommendation given by them. By this kind of analysis, main response patterns were identified. These patterns, along with the percentages with which they appeared, will be presented below.

The analysis of the responses to the question: "For a child without dyslexia, which of the occupations listed would you consider as the best occupational choice, and which would constitute a choice that you would not advise? List below the names of the occupations and the reasons behind each individual choice" yielded the following response patterns. Concerning SCCG: Half of them stated that the best choice, is a choice of an occupation included in the high occupational category; 30% of them stated that the best choice is a choice which matches children's skills, abilities, interests, traits of personality, whereas 20% of them did not answer.

Those who preferred occupations in the high category used, as their predominant argument, the employability of these occupations, with the most preferred occupation being the occupation of "web designer, computer analyst/programmer", followed by the occupation of "electrical engineer". Both these occupations are proposed as offering the best prospects to get a career in an important occupation, and especially so considering the expected high future demand, due to projected market developments.

As much as 23% of PG responded to the question about the best choice for a child without dyslexia being the choice that fits children's skills, abilities, interests, and traits of personality; 18% of the PG did not give any answer, while half of them preferred occupations included in the high and medium categories. The PG justified their preferences for the occupations in the high category, based on the high social status of these occupations. However, at the same time, they pointed out that such occupational choices could be erroneous choices since most of the occupations of this high category are preferred by adolescents because of their social status. According to them, parents themselves are, for the most part, responsible of this mentality. Under parental influence, adolescents are often led to choose occupations of high status that do not match their abilities and interests. They choose them in order to fulfil their parents' aspirations. Furthermore, these occupations, being progressively saturated, cannot be considered as "good" choices anymore.

Among the occupations in the high category, PG seemed to prefer that of "architect" because of its creativity and its prestige. Similarly to the SCCG and based on a similar argumentation, they indicated the occupations of "web designer, computer analyst/programmer", as well as the occupation of "electrical engineer" as "good" choices. Job security, financial security, and financial reward were, according to them, the most significant criteria for choosing a profession. Especially, the criteria of job security and financial security are crucial for the parents who, therefore, consider the occupation of teacher as a "good" choice; "which, although it has lost it previous prestige, has the advantage of assured salary combined with the limited number of hours at school and long holidays". Moreover, the combination of good income and good career prospects led the majority of PG to choose the occupation of "physiotherapist", which, according to them, "is a well-paid job, has high status and is promising in terms of employment opportunities".

For both groups, the occupations that they would not advise, to a child without dyslexia, are occupations in the low category such as the profession of "livestock farm worker" because of their low remuneration, low prestige, and perceived low employability. On account, criteria such as low income, saturation, and limited career opportunities, for some of the occupations in the high category such as those of "attorney" and of "teacher", were also considered by SCCG as "not such a good choice". The saturation of the profession of "attorney" also led some parents to consider it as an undesirable profession, which they would advise a child without dyslexia to avoid.

The analysis of the participants' responses to the question "For a child with dyslexia, which of the occupations listed would you consider as the most suitable occupational choice, and which of the above would constitute a choice that you would not advise?", yielded the following responses. As much as 26% of career SCCG responded that the most suitable career choices are related to occupations that do not demand high written language skills, in other words, those belonging to the high category. A 32% of them did not give any answer. The remaining 42% considered that the most suitable career choices are related to occupations belonging to the medium and low categories, since these occupations require a mediocre use of written language skills or require other skills that children with dyslexia may have or may develop in the future, such as communication skills. One of the most preferred occupations was that of "physiotherapist" as it is an occupation with a perceived good income and employability without posing heavy requirements on the level of written language use. Some of the other occupations in the medium category, such as that of artist and of interior/decorator, were also proposed, "as they give room to one's creativity." The occupation of plumber was also indicated as a suitable choice, as it is a manual job with very low written-language requirements.

Regarding the PG's reports, with the exception of the 5% who did not answer, 35.7% of them stated that the severity of dyslexia is an important consideration in career choice and that a suitable occupation is one that matches the child's personality, specific skills, and special interests best.

In addition, a certain number of them emphasized the role of a child's aspirations, as well as, that of the effort required to succeed: "if they want something very much and they try hard for this, they will reach their goals." A 59% of PG consider occupations belonging to the medium category as the most suitable as they mostly require communicative skills that a child with dyslexia may have or may develop in the future. Examples are: "advertising manager and PR manager" and "customer service officer", as "these children are good in maths, in communication, and they can also use their imagination and their artistic flair". Indeed, occupations demanding imagination and artistic flair such as the occupations of "artist" and "interior/decorator" were also favoured. The occupation of

"physiotherapist" was the one preferred by both groups, as having the advantage of being well paid without posing high-written language requirements.

Concerning occupations that participants would advise a child with dyslexia to avoid, both groups agreed (70% of the PG and nearly all of the SCCG) that it would be those belonging to the high category because of the high-written language requirements they hold. There are two occupations that both PG and SCCG consider as being the most unsuitable for a dyslexic child, namely that of "attorney" and that of "medical doctor", because of the extended use of the written language that they require. Nevertheless, among the occupations in the high occupational category, one can distinguish that of "web designer, computer analyst/programmer" which is judged by both groups as a suitable occupation for a child with dyslexia. The reason both groups invoked, for justifying this option, is that the execution of this occupation relies more on the efficient use of computers than of written language.

In addition, according to PG, occupations in the low occupational category are also unsuitable for a child with dyslexia, for the same reasons as for a child without dyslexia (low remuneration, low prestige, and low employability).

Furthermore, for specific occupations such as the occupation of bricklayer/ construction worker, there is always the question of perceived safety, which makes this occupation unsuitable for a child with dyslexia as much as for a child without dyslexia.

Discussion

This study investigates the way (a) parents of children with dyslexia and (b) school career counsellors view the occupational competence of dyslexic children, and compares these views to those for the non-dyslexic ones. A novel instrument has been specially developed for this purpose, based on the "Evaluation of Occupational Competence" (EOC) scale used in the Weisel and Cinamon's (2005) study.

In the present study, (1) the effect of the Target-Group (dyslexic vs. non-dyslexic children), as well as (2) the effect of the Rater's Status (i.e. parents vs. school career counsellors), were investigated. A third factor (3) in the analysis was the Occupational-Category, that is a generalised grouping of the occupations under investigation (low vs. medium vs. high), while the interaction between all these three factors also came under scrutiny. In addition to the quantitative data collected, some qualitative data were also gathered, which provided additional information that proved very helpful in the analysis and interpretation of the quantitative results.

Strong effects from both the Target-Group factor and Occupational Category factor were obtained, while cross-influences were further investigated. According to the results, the participants' ratings differed significantly depending on the target-group: for dyslexic children the ratings were lower than for non-dyslexic children. As there exists no comparable study in the literature, it suffices to say that this difference is overall-compatible with other findings that, in a more general way, support the view of low expectations that parents and teachers hold of children with dyslexia (Hakkarainen, Holopainen, & Savolainen, 2013; Kiuru et al., 2011; Patrikakou, 1996; Rimkute et al., 2014; Snowling et al., 2007). Results are also compatible with the stereotyped belief that a child with dyslexia cannot achieve the same level of competence as a child without dyslexia. It has even been previously shown that being labelled as reading-disabled, can seriously affect parents', as well as teachers' expectations (Lackaye & Margalit, 2006; Spear-Swerling & Sternberg, 1996; Tournaki, 2003; Woodcock & Vialle, 2010).

A result particularly worthy of attention, is related to the discrepancy between the parents' and career-counsellors' ratings regarding the suitability of the occupations proposed for a child with or without dyslexia. While parents and counsellors provided similar ratings when a child without dyslexia was the target, they rated in a substantially different way regarding the occupational choices for a dyslexic child. More specifically, while both groups of raters coincided in their opinion by assigning their lowest ratings to the occupations included in the high occupational category, they differed regarding their ratings for the medium occupational category, as well as for the low occupational category. Parents gave their highest ratings to the occupations included in the medium occupational category, followed by those to the occupations included in the low occupational category. The rating pattern by the counsellors group was found to be exactly the opposite: they gave their highest ratings to the occupations that were included in the low occupational category, followed by those to the medium occupational category. In other words, compared with counsellors, parents considered the occupations of the medium category more suitable, and the occupations of the low category as less preferable for a child with dyslexia.

Since this study did not aim to examine parents' expectations and/or aspirations for the occupational future of their child with dyslexia, it would be a speculation to attribute this finding to any particular factor related to these constructs. However, it is plausible to suppose that the parents could not avoid thinking about their own child while completing the questionnaire. The clear difference between parents' and counsellors' ratings, suggests that parents allowed themselves to express their cognitions, albeit indirectly, about their own dyslexic child's occupational future. According to the results, the parents proved to be quite realistic about the limitations imposed by dyslexia on the potential preparation for and continuing performance of certain professions that require an extensive use of written language, such as teaching and the practice of law or medicine. This would explain why they gave these career-options the lowest ratings. On the other hand, they were more positive than the counsellors were, towards such career choices and, in general, towards career choices related to occupations in the high occupational category. This latter finding is corroborated by their reluctance to opt for occupations belonging to the low occupational-class, although, in their answers to the open-ended question, they attempted to justify, in various ways, this negative attitude towards these occupations (i.e. safety concerns associated to the profession of bricklayer/construction worker). It is, therefore, clear in what they report, that they do not easily entertain the prospect of the occupations included in the low category for these children, as these occupations are associated with low social status. These results, concerning the difference between the parents and counsellors ratings, can be interpreted in two different ways. Firstly, the parents are influenced by their wishes and higher aspirations for a dyslexic child that is, most probably, their own and therefore neglect the potential difficulties or even very real barriers this child could encounter when exercising a highly demanding profession. This wishful thinking leads them to form their expectations on a less realistic basis, and closer to the one more suited to a child without reading difficulties. Importantly, the analysis of their responses in the follow-up question revealed that a relatively high percentage of parents tended to associate the notion of suitability to a child's characteristics such as personality, special interests, and skills. This fact suggests that the disability factor is not the predominant factor in their evaluations. As noted in the introduction, most parents of children with dyslexia are reluctant to accept their child's difficulties.

Secondly, the parents of children with dyslexia are likely to hold the belief that their children, despite their difficulties, can reach their aims simply by exerting greater effort. Research findings (see Yamamoto & Holloway, 2010) show that parents' belief in effort can be a primary determinant of their children's school performance and that parents can be distinguished from each other, depending on the extent to which they believe in effort. In fact, it has been shown that for some parents, prior school performance represents a reliable indicator of future academic achievement of their child, one that will not be easily altered even if more effort is applied. For those parents,

achievement outcomes cannot be attributed to any factor other than the children's ability or intelligence, qualities which are perceived as entities not susceptible to change (Weiner, 2005). Other parents, however, believe that achievement outcomes can potentially always be improved if students try harder. To return to the comparison of parents' and counsellors' ratings for a dyslexic child, the fact that parents gave their highest ratings to the occupations of the medium occupational category, and not to the occupations of the low category as counsellors did, may be attributed to a parental belief system that favours the role of effort, in educational and career development. The parents' written reports confirmed a relevance of such a belief system, although only a small number of parents invoked the potential influence of persistent effort by children during their lives, to attain, sustain, and excel in whatever job they aspire to. At the risk of misinterpreting the parents' reports, committing themselves to a painstaking effort, children with dyslexia can assert their right to choose a career.

On the other hand, the fact that counsellors gave their highest ratings to the occupations in the low occupational category, suggest their tendency to attach a much higher importance to the disability factor than the parents did, in their ratings. Here, as well, two types of interpretation can be proposed: Firstly, the counsellors, having the comparative advantage of being more sentimentally aloof from students, with dyslexia or otherwise, can form expectations about their occupational prospects grounded on a somehow more realistic basis. Secondly, the counsellors may be influenced by stereotypes regarding occupational suitability when children with disabilities are concerned. The analysis of their responses during the follow-up questions appears to confirm the results of the quantitative analysis. In fact, as reported, they would not advise occupations belonging to the high class, because of the high-written language requirements they hold. The profession of "web designer, computer analyst/programmer" was an exception, as technical skills are perceived to be more relevant for the performance of this specific job than reading-related ones. Their preference, however, for blue-collar jobs, such as that of plumber or of livestock farm worker, suggests a rather stereotyped belief that manual jobs are those that suit best a child who lacks the crucial skills for performing higher occupational status jobs. This seems to be a plausible interpretation, and especially so, if one takes into account the fact that these specific jobs were among those that the counsellors would not recommend to a child without dyslexia. Finally, it is noteworthy that none of the counsellors referred to the notion of effort. Therefore, dyslexia is perceived as a problem with various implications for a child's educational and occupational trajectory, which cannot change. Dyslexia is perceived by them as a barrier that cannot be overcome.

To the extent that parents' and counsellors' evaluations of occupational competence of a dyslexic child reflect their mutual cognitions about what such a child can achieve in his/her work life, the following conclusions can be formulated. Arguably, the parents who participated in this study appeared to be aware of dyslexia's implications to child career development. Otherwise, they would rate high the occupations included in the high occupational category. The fact that they favoured occupations in the medium category, along with the content of their reports, confirms that they understand that a job with no heavy reliance on the written language skills would be preferable, in this case.

The fact, however, that they had such negative attitudes towards occupations in the low category suggests their reluctance to accept that a child with dyslexia is only suited to blue-collar jobs. Apparently, it is a question of social status that underlies the whole issue here, something well documented in the literature as being one of the main determinants of career choices. It seems that the parents tried to balance between the need to acknowledge that dyslexic children's reading difficulties are potential impediments to their careers, and the need to believe that these difficulties cannot constitute insurmountable barriers. The parents invoked effort as a possible pathway for

children to overcome these barriers and, therefore, not to compromise their goals. Consequently, their pre-emptive advice to a child with dyslexia would be, instead of choosing a less skilful job, to try harder in order to make a satisfying career choice.

In sum, the parents' cognitions, as reflected in their estimates, seem to be a construct in which idealistic aspirations and realistic expectations are confounded. This mix-up contrasts with counsellors' cognitions which are certainly more realistic, thus nearer to the content of expectations. One could speak about estimates and judgements but not devoid of stereotypes. This can explain why they preferred jobs belonging to the medium occupational category than those belonging to the high occupational category but also explains why they were more than positive about jobs belonging to the low category. Having in mind that essentially blue–collar jobs are included in this category, we can easily assume that, for the counsellors, dyslexia is not just a limiting factor, but also a substantial barrier that these children cannot overcome. Based on the above, one can assume that counsellors' cognitions are a construct in which realistic expectations and stereotype beliefs are confounded.

Implications for Career Counselling Interventions in School Settings

The findings in the present study should be regarded as the first attempt to investigate cognitions held by parents of children with dyslexia and counsellors concerning the occupational competence of dyslexic children. It is hoped, however, that these results may contribute to our understanding of the effect that cognitions, held by such third parties, may exert on such a child's career-development, as well as on their implications for better career counselling in normal school settings.

As noted in the introduction, individuals with learning disabilities, are, compared to their typically developing peers, at a disadvantage when career development issues are concerned. Therefore, there is no doubt that children with learning disabilities can hardly succeed in their careers without support. This support is essentially provided to children by parents, teachers, counsellors, and school administrators. It has also been emphasized that a crucial parameter for effective support is that the individuals involved display a good knowledge about LD and a profound understanding of the special academic, personal, social, and career challenges faced by individuals with LD.

Therefore, there is a need for professional guidance, provided by well-informed counsellors and sensitive enough to the unique career needs of these individuals (see Chen & Chan, 2014). As the review of the career research literature shows, the exact role of the counsellor in providing effective career guidance for students either with or without disabilities is questionable (Romano, Paradise, & Green, 2009). Nonetheless, it is beyond the scope of this article to enter into the details of this discussion. Historically at any rate, career counselling and interventions, have played a significant role in counselling psychology practice and research. We suffice to say that the aim of career counselling and interventions, is to help people to make goal-congruent work or career choices that will enable them to experience life satisfaction, inasmuch this depends on work and career satisfaction (Kassotakis, 2004; Kriwas, 2004; Malikiosi-Loizos, 2012; Malikiosi-Loizos & Ivey, 2012; Whiston, 2002; Whiteley, 1984). This necessitates for the counselees to become, with counsellor mediation, aware of different variables related to their careers such as their strengths and weaknesses, their interests and values (Brouzos, 2009). This is even truer for individuals with LD who, inevitably, display specific deficiencies in these areas (see Chen & Chan, 2014). In this sense, an effective intervention aiming at improving these individuals' vocational and career prospects, should focus on training them to emphasize their strengths and minimize the effects of their disability, facilitating their skill-attainment, boosting their self- and career-awareness and developing their career maturity.

Furthermore, in light of the results presented herein, an intervention would be less likely to be effective if, not only the specialised developmental needs of students with dyslexia are addressed, but the needs of their parents too. Undoubtedly, parents are the most committed persons to their children's future, and the most influential people regarding their careers. On the other hand, parents are also those who are the most sentimentally affected by their child's disability. Even if parents are aware and fully informed about their child's disability, prognosis, and treatment or, conversely, still seeking a label for their child's atypical learning and behaviour, they all experience strong feelings. Some of them handle their feelings constructively and, thus, provide support to their children and advocate for them. Some others, knowing their children's needs to rely on them, tend to exert a high level of control over their decisions. This control, although understandable, can easily slip into overprotection, which may be highly detrimental to these children's, already low, sense of self-determination (see Cummings et al., 2000; Dipeolu & Keating, 2009; Rojewski, 1993). Other parents, probably a majority of them, experience negative feelings and even shame, concerning their child's disability. Thus, they tend to minimize or hide the problem. All these parents need help themselves (see Marshak, Dandeneau, Prezant, & L'Amoreaux, 2010).

A learning disability represents the most common reason that students require special education services (see Chen & Chan, 2014). There is ample evidence to date that, compared to the professionals in traditional psychiatric settings, school counsellors are more likely to adequately serve children with LDs (as well as their parents). This is really the case, provided they have a good knowledge and sufficient expertise in handling the inclusive goals and establishing a school-family-professionals partnership (see Kourkoutas & Giovazolias, 2015). Still, the needs of students with disabilities, as well as those of their parents, are often excluded from school counselling programs. Indeed, there is widespread criticism in Greece and abroad that the special education population remains on the periphery of school counselling programs and research (Hitchings et al., 2001; Milsom, 2002; Sidiropoulou-Dimakakou, 1995).

Summing up, one can conclude that career counselling and guidance services should be well informed and sensitive to the unique career needs of individuals with LDs. Indeed, counselling should be provided to these children, (as to all children with other disabilities) from the first moment in their school life up until the end of their studies, but also to their parents, in order to support them and help them meet the particular needs of their own children (Sidiropoulou-Dimakakou, 1995).

Hence, the role of school counsellor is also to find ways to interact more effectively with families and to form partnerships with them. This is not an easy task, as both parents and counsellors are easily susceptible to stereotypical ways of thinking. It is usual for parents to complain about unfair treatment and discrimination toward their child, while they, in turn, are characterised by counsellors and teachers as being too aggressive or too unrealistic about their children's future (see Marshak et al., 2010).

Addressing the needs of these individuals and supporting their educational and occupational developmental process implies, for the counsellor, the effort to go beyond these considerations and to work collaboratively with parents as well as teachers. To this effect, it seems that, based on a good understanding of the unique career challenges and needs of LD children, multilevel and multi-systemic programs that integrate child-centred, teacher-centred, and family-centred counselling interventions, are those that are the most likely to bear fruit. In this manner, they associate such children with work opportunities and help them experience satisfying and successful work lives (Kourkoutas & Giovazolias, 2015; National Association of School Psychologists, 2010).

Limitations of the Study and Future Research

The results of the present study cannot be generalised to all parents and to all counsellors. This is especially true for parents. The majority of the parents who participated in this study had a medium to high socio-economic status. Possible variations in parents' evaluations as a function of their socio-economic status (SES) could be investigated in future studies. Concerning the group of counsellors, the main problem is its heterogeneity. In fact, some of the counsellors were responsible for school career counselling as it is currently implemented as part of the school curriculum, while some others worked at the specialized School Career Counselling Offices (GRA.S.E.Ps). These two sub-groups differ, not only with respect to the quantity of training they have received, but also with respect to the target-group of their career counselling. Those working at GRA.S.E.Ps had received a more extended training than those of the other sub-group, while they provided services not only to students but also to parents. This may raise some issues regarding the possible influence on their evaluations because they were more familiar with the parents' belief systems. This (geography based) grouping of the sample was in a way convenient and effective at the same time, since the number of counsellors working at GRA.S.E.Ps was rather limited, thus preventing us from forming two comparable in size homogeneous sub-groups of counsellors. As the institution of GRA.S.E.Ps is no longer in existence, any further investigation about any possible variations in counsellors' evaluations as a function of their competencies and specialised training in learning difficulties could not be a reasonable field pathway for further investigation.

Regarding future research, our propositions are the following: first, taken into account the recent economic crisis in Greece, the potential impact of various socio-economic factors such as limited career opportunities or unemployment on parents' and counsellors' cognitions of the professional choices of children, either with or without disabilities could be investigated (see Sidiropoulou-Dimakakou, Argyropoulou, Drosos, & Terzaki, 2012). Second, since teachers are among the main stakeholders involved in children's educational and occupational development, they could also be represented in future samples.

We believe that despite its limitations, the present study offers a valuable contribution that has implications for further research in the domain of the career development and decision-making processing, as well as implications for career guidance interventions that focus on the specialised needs of children with learning disabilities and dyslexia.

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