

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/282535512>

Representation of Disability. Verification of the Contact Hypothesis in School

Article in *Procedia - Social and Behavioral Sciences* · June 2015

DOI: 10.1016/j.sbspro.2015.04.408

CITATIONS

8

READS

530

3 authors, including:



Paola Magnano

Kore University of Enna; University of Catania

62 PUBLICATIONS 358 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Courage Research Group [View project](#)



I'm working on stress and burn out in sicilian health professionals [View project](#)

WCES 2014

Representation of Disability. Verification of the Contact Hypothesis in School

Arianna Consiglio^a, Maria Guarnera^b, Paola Magnano^{b*}

^aUniversity of Catania, Dipartimento di Scienze della Formazione, Catania 95124, Italy

^bUniversity Kore of Enna, Cittadella Universitaria, Plesso di Psicologia, Enna 94100, Italy

Abstract

The study compares attitudes and social representations towards disabled children among children that have contact and non-contact experiences. The participants were 80 children, aged 9-12 years, divided in two groups balanced for gender and age. A semi-projective instrument was used, ad hoc designed with cartoons, to express attitudes towards non-disabled (in-group) and disabled (out-group) children and a Semantic Differential relative to disabled children, made up of 20 couples of opposite adjectives. The instruments were used individually during school time. Children with contact experiences have a positive attitude towards the ones belonging to out-group and show towards disabled children a positive social representation. The study confirms the important role of the school context for the integration of disabled people.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Selection and peer-review under responsibility of the Organizing Committee of WCES 2014

Keywords: Contact Hypothesis; disability; prejudice.

1. Main text

Prejudice arises primarily from the mind's need to use mechanisms of simplification, organization, and schematization to deal with the complexity of reality external to the individual. Studies of prejudice in children and adolescents, particularly with regard to disability, have attracted considerable interest. Aboud (1988) argues that the reasons for the hostility of non-disabled children towards peers with disabilities are to be sought in the cognitive limits typical of children in a preschool and early elementary school age. The author proposes a three-phase model which records an increase in preference for the in-group up to 7 years or so; after this peak, there is a transition from

* Paola Magnano. Tel.: +432-432-432-432.

E-mail address: paola.magnano@gmail.com

preference to their own group to a preference towards others, an authentic reversal of preference (9-10 years). These findings are supported, from a theoretical point of view, by Piaget's model of the development of intelligence and, empirically, by the results of research (De Caroli, 2005; Doyle & Aboud, 1995). Undoubtedly, prejudice in childhood towards disability is characterized by a multidimensional view, as it combines social and cognitive elements. Allport's contact hypothesis (1954) has been suggested as a way to reduce this discrimination, because it is able to reduce hostility in intergroup relationships and encourage integration, but for it to be effective, it is necessary to structure contact between children with and without disabilities, creating the conditions that ensure not simply general but "quality" contact. A modification of the negative stereotypes underlying discriminatory behaviour can thus be obtained by increasing contact opportunities (in terms of physical proximity) with groups characterized by any form of diversity (disability, ethnicity, etc.) and bringing cognitive elements to bear on them. The improvement of intergroup relations associated with "contact" has been attributed, therefore, to vicinity (in terms of physical proximity) with members of the out-group that makes the verification of similarities, beliefs, and attitudes possible (Cook, 1969) as well as identification of roles (Aboud, Taylor, & Doumani, 1973). Consistent with Allport's contact hypothesis, research has shown that intergroup contact is not only effective in reducing negative stereotypes and prejudices towards race and ethnicity (Crystal, Killen, & Ruck, 2008), but also in relation to disability (Gaertner & Dovidio, 2000; Maras & Brown, 2008;). For example, integrated classrooms, compared to non-integrated, have a positive effect on children's attitudes towards peers with disabilities (Nowicki & Sandieson, 2002). Contact, according to Pettigrew (1971) increases attraction between groups, on the other hand according to Cook (1979) it may also not produce a general change in prejudice. Although several studies have demonstrated the benefits of Allport's contact hypothesis, there is much evidence in the literature that supports different points of view. The project "Disability Equality in English Primary School Project" found the persistence of strong prejudice against disabled peers despite the launch of an awareness program in primary schools in English (Beckett, 2009; Beckett, Ellison, Barrett, & Shah, 2010). Contact alone does not automatically reduce prejudice (Pettigrew & Tropp, 2008). In confirmation of this, a research project carried out in Sicilian schools using a focus group methodology (Di Nuovo, 2007) showed stereotypical perceptions and prejudice against the disabled in teachers, assistants, families and classmates of students with disabilities. Because children understand the difference between physical and cognitive deficits (Magiati, Dockrell, & Logotheti, 2002), attitudes toward people with disabilities should be analysed, differentiating between disability types (Cook & Semmel, 1999). Research into the attitudes of children with disabilities has found that attitudes vary depending on the type of disability (Nowicki, 2006), i.e. disabilities which are less apparent (such as mental disability) are judged more negatively than more evident disabilities (for example, motor disability) (Nowicki & Sandieson, 2002). Moreover, attitudes vary according to the characteristics of the context in which attitudes towards disability are assessed (Nowicki, 2006). For example, adolescents reported less desire to interact with disabled peers for intimate activities (e.g., talking about personal matters) or that require advanced cognitive and social skills (e.g., homework) to less intimate or less demanding activities (e.g., lending a pencil) (Siperstein, Parker, Bardon, & Widaman, 2007). Our research aims to make a contribution to the studies mentioned above by investigating the nature of prejudice towards disability in childhood, according to the contact hypothesis model (Allport, 1954).

2. Hypothesis

The goal of our work is to explore social representations and prejudiced attitudes in children and adolescents towards the disabled in subjects with experience of "contact" and "non-contact". In this regard, we chose the age range between 9 and 12, in order to study the presence or absence of prejudicial attitudes influenced exclusively by the experience of contact. This eliminated the influence of cognitive limitations which can be present in pre-schoolers and those in the early years of elementary school (4 to 8), that may cause negative bias against persons with disabilities because of egocentric thinking (Ryan, 1981; Smith & Williams, 2001). We hypothesized that the experience of "quality" contact (Allport, 1954) can facilitate the reduction of prejudicial attitudes.

3. Subjects

The research participants were 80 children, balanced for gender and aged between 9 and 12 years (M: 10.34, SD: 0.76), attending the 5th classes of primary school and the first class of (first level) secondary school, of two Italian comprehensive schools. The subjects were divided into 2 groups: 40 subjects with experience of contact with disabled peers (Mage: 10.30; SD: 0.69), including 20 males and 20 females and 40 subjects without contact experience with disabled peers (Mage: 10.38; SD: 0.84), including 20 males and 20 females. The disabled, foreigners and repeating pupils were excluded from the survey.

4. Procedure and Instruments

The procedure envisaged the use of the following measuring instruments, which will be described below:

1. A semi-projective instrument Perception of the able-bodied of disability (PND);
2. Semantic Differentials (see Osgood, Suci, & Tannenbaum, 1959).

The research was conducted in the month of April, near the end of the school year, to ensure a long period of experimentation in classroom contact ("quality" contact). Since the subjects were minors, authorization from the parents was required before the surveys could begin. Anonymity of the questionnaire was guaranteed in order to protect privacy. The procedure involved the use of the instruments in an individual context, in a quiet environment, separated from the classroom atmosphere, during school hours. Administering the instruments took approximately 30 minutes.

The instruments are:

1. A semi-projective instrument. Perception of the able-bodied of disability (PND) is an instrument designed specifically for research purposes, based on a similar instrument developed by De Amicis and Castelli (2004); it consists of 4 cartoons printed on cardboard in order to assess the subjects' preference for peers from the in-group and out-group. The first panel shows an able-bodied child playing with a disabled peer. The picture is shown to the subject with the following instruction: "Now I'm going to show you a drawing of children playing. They have just finished playing". Subsequently, the protagonists of the first picture are presented separately, asking the following questions: "Which of these children that I showed you would you choose for your playmate? Which of these children would you prefer as a classmate? Which of these children would you like to give a present to?" These questions allow us to register preference, or choice, between the able-bodied and disabled (in-group vs. out-group). Secondly, three pictures are presented which represent three different types of disability: motor, sensory and cognitive, represented respectively by a child in a wheelchair (paraplegic), a blind child and a child with Down's syndrome (see Figures 1 and 2). The child is prompted to choose between the three types of disability by putting the same questions from the first card. In this way, greater or lesser opening towards one of the types of disabilities represented can be assessed.

2. Semantic Differential. Following the presentation of each card of the semi-projective instrument, a Semantic Differential is employed, an instrument built specifically for the purposes of research, consisting of 20 pairs of polar adjectives, each to be assessed on a scale of 7 intervals (e.g. from very "strong" = 1 to very "weak" = 7). The differentials used for this research refer to the following terms: "Same age with physical disabilities", "Same age, blind", "Same age with Down syndrome."

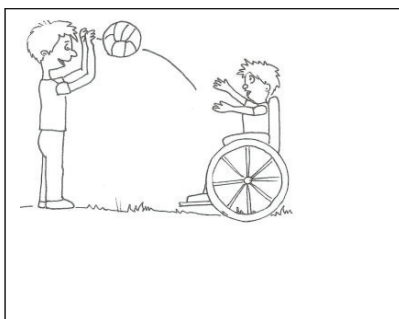


Fig 1 . Couple of friends: able-bodied child plays with disabled child

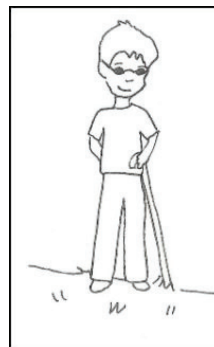


Fig. 2. Sensory disability

5. Results

5.1 Attitude and social representation of the able-bodied pupils towards disability: direct preferences

Chi-square test was used to compare the preferences of the group of children with experience of contact with the group of children with no experience of contact. The results indicate that in children with experience of contact it is statistically significant the preference for the same age pupil of the out-group, whether as a playmate, a classmate or a friend to give a present to. In addition, the results show that in children without contact experience it is statistically significant the preference for the same age pupil of the in-group, whether as a playmate or a classmate. On the contrary, they prefer to give a gift to a same age pupil of the out-group (Tables 1, 2 and 3).

Table 1. Difference in the preference of playmates, contact group vs. non-contact group

	Disable		Able-bodied		Total	
	(f)	%	(f)	%	(f)	%
Gr. with contact	31	38.75%	9	11.25%	40	50%
Gr. without contact	17	21.25%	23	28.75%	40	50%

Chi-square = 10.21; df=1; p = 0.001

Table 2. Difference in the preference of classmates, contact group vs. non-contact group

	Disable		Able-bodied		Total	
	(f)	%	(f)	%	(f)	%
Gr. with contact	22	27.50%	18	22.50%	40	50%
Gr. without contact	13	16.25%	27	33.75%	40	50%

Chi-square = 4.11; df=1; p = 0.04

Table 3. Difference in the preference of friend to give present to, contact group vs. non-contact group

	Disable		Able-bodied		Total	
	(f)	%	(f)	%	(f)	%
Gr. with contact	36	45.00%	4	5.00%	40	50%
Gr. without contact	28	35.00%	12	15.00%	40	50%

Chi-square = 5.00; df = 1; p = 0.03

Furthermore, analysis of the mean values of Semantic Differential shows, with significant differences (t test, p

<0.05), that the group with experience of contact has a more positive representation of the same aged disabled pupil, unlike the group without experience of contact. The "disabled peer", then, is considered, by pupils with experience of contact rather than those without, as: healthy, cheerful, serene, beautiful, good, calm, independent, sociable, and intelligent.

5.2 Attitude and social representation of able-bodied pupils towards physical, sensory and cognitive disability: direct preferences

The Chi-square analysis indicates that, in subjects with experience of contact, visually impaired peers are significantly preferred to those of the same age in a wheelchair (paraplegic) and of the same age with Down's syndrome, as a playmate. The analysis also shows that subjects with no experience of contact significantly prefer peers in a wheelchair (paraplegic) as playmates (Table 4).

Table 4. Differences in preference of playmates, contact group vs. group without contact

	Wheelchair		Down Syndrome		Blind		Total	
	(f)	%	(f)	%	(f)	%	(f)	%
Gr. with contact	6	7.50%	13	16.25%	21	26.25%	40	50%
Gr. without contact	18	22.50%	9	11.25%	13	16.25%	40	50%

Chi-square = 8.61; df=2; p = 0.01

Furthermore, from the analysis of the Semantic Differential it is clear that pupils with experience of contact, compared to those without such experience, have a more positive representation of the child with sensory disabilities for the following adjectives: healthy, joyful, peaceful, lively, strong, calm, fun. Consistently, subjects with experience of contact compared to those without have a more positive representation of the child with Down syndrome for the following adjectives: affectionate, cheerful, clean, friendly, intelligent, selfless. Finally, pupils with experience of contact, compared to those without contact have a more positive representation for the paraplegic child for the following adjectives: healthy, cheerful, serene, beautiful, good, calm, and independent, sociable, intelligent. The results obtained allow us to state that contact does not only allow us to change our attitudes towards individual members of the out-group, but also favours modification of prior opinions about the whole out-group.

6. Conclusions

The research was conducted with the aim of exploring social representations and prejudicial attitudes in children towards peers with disabilities in individuals with experience of "contact" and "non-contact". In particular, it was found that children with experience of contact significantly prefer the peer from the out-group and have a positively oriented social representation towards the latter. Children with no experience of contact, on the other hand, have social representations and attitudes more positively oriented towards the in-group. In addition, subjects with experience of contact prefer peers with sensory disabilities compared to peers with cognitive and motor disabilities, while pupils with no experience of contact prefer peers with physical disabilities compared to peers with sensory and cognitive disabilities. Individuals with experience of contact, compared to those without, are oriented towards a positive representation of the three types of disability. These results further support the usefulness of a school environment inspired by Allport's contact hypothesis; the inclusion in the class of a "different" pupil responds to the principle of "contact" as a means to promote integration. In order to ensure the overcoming of prejudicial attitudes, recent research conducted by Legault, Gutsell, and Inzlicht (2011) states that people need to feel that they are freely choosing not to have prejudices, rather than having this imposed from above, otherwise an effect opposite to that desired by the "anti-prejudice measure" will be created. The information which comes from contact, therefore, will allow subjects to choose freely and consciously not to be prejudiced, to reject their unfounded beliefs and stereotypical thought patterns, in favour of an increasing flexibility towards diversity.

References

- Aboud, F. E., Taylor, D. M. & Doumani, R. G. (1973). The effect of contact on the use of role and ethnic stereotypes in person perception. *Journal of Social Psychology*, 89, 309-310.
- Aboud, F.E. (1988). *Children and prejudice*. New York: Blackwell.
- Allport, G. W. (1954). *The nature of prejudice*. Cambridge: Addison-Wesley.
- Beckett, A. (2009). Challenging disabling attitudes, building an inclusive society: considering the role of education in encouraging non disabled children to develop positive attitudes towards disabled people. *British Journal of Sociology of Education*, 30, 317-329.
- Beckett, A., Ellison, N., Barrett, S., & Shah, S. (2010). Away with the Fairies? Disability within primary-age children's literature. *Disability and Society*, 25, 373-386.
- Cook, B. G., & Semmel, M. I. (1999). Peer Acceptance of Included Students with disabilities as a function of severity of disability and classroom composition. *The Journal of Special Education*, 33, 55-61.
- Cook, S. W. (1979). Desegregation: A psychological analysis. In W.J. Arnold, & D. Levine (Eds.), *Nebraska symposium on motivation*. Lincoln: University of Nebraska Press.
- Crystal, D. S., Killen, M., & Ruck M. (2008). It is who you know that counts: Intergroup contact and judgments about race-based exclusion. *Journal of British Developmental Psychology*, 26, 51-70.
- De Amicis, L., & Castelli, L. (2004). Relazione fra pari: quando intrattenere rapporti positivi con un bambino in sedia a rotelle conduce ad emarginazione. *Età Evolutiva*, 79, 5-19.
- De Caroli, M. E. (2005). *Categorizzazione sociale e costruzione del pregiudizio*. Milano: Franco Angeli.
- Di Nuovo, S. (2007). *L'integrazione possibile: Una ricerca sull'inserimento scolastico dei disabili nel territorio siciliano*. Palermo: IRRE.
- Doyle, A. B., & Aboud, F. E. (1995). A longitudinal study of white children's racial prejudice as a social-cognitive development. *Merrill-Palmer Quarterly*, 41, 209-228.
- Gaertner, S. L., & Dovidio, J. F. (2000). *Reducing intergroup bias: The common ingroup identity model*. Philadelphia: The Psychology Press.
- Legault, L., Gutsell, J., & Inzlicht, M. (2011). Ironic effects of anti-prejudice messages. *Psychological Science*, 22, 1472-1477.
- Magiati, I., Dockrell, J. E., & Logotheti, A. (2002). Young children's understanding of disabilities: The influence of development, context and cognition. *Applied Developmental Psychology*, 23, 409-430.
- Maras, P., & Brown, R. (2000). Effects of different forms of school contact on children's attitudes toward disabled and non-disabled peers. *British Journal of Educational Psychology*, 70, 337-351.
- Nowicki, E. A. (2006). A cross-sectional multivariate analysis of children's attitudes towards disabilities. *Journal of Intellectual Disability Research*, 50, 335-358.
- Nowicki, E. A., & Sandieson, R. (2002). A meta-analysis of school-age children's attitudes towards persons with physical or intellectual disabilities. *International Journal of Disability, Development and Education*, 49, 243-265.
- Osgood, C., Suci, G. J., & Tannenbaum P. M. (1957). *The measurement of meaning*. Urbana: University of Illinois Press.
- Pettigrew, T. F. (1971). *Racially separate or together?* New York: McGraw-Hill.
- Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *Europeans Journal of Social Psychology*, 38, 922-934.
- Rayn, K. M. (1981). Developmental differences in reaction to the physically disabled. *Human Development*, 24, 240-256.
- Siperstein, G. N., Parker, R. C., Bardone, J. N., & Widaman, K. F. (2007). A national study of youth attitudes toward the inclusion of students with intellectual disabilities. *Exceptional Children*, 73, 435-455.
- Smith, L. A., & Williams, J. M. (2001). Children's understanding of physical, cognitive and social consequences of impairments. *Child: Care, Health and Development*, 27, 603-617.