

May 18th, 9:00 AM - May 21st, 5:00 PM

Commentary on Uses of arguments from definition in children's argumentation

Daniel Fasko Jr

Bowling Green State University - Main Campus

Follow this and additional works at: <https://scholar.uwindsor.ca/ossaarchive>



Part of the [Educational Psychology Commons](#)

Fasko, Daniel Jr, "Commentary on Uses of arguments from definition in children's argumentation" (2016). *OSSA Conference Archive*. 36.

<https://scholar.uwindsor.ca/ossaarchive/OSSA11/papersandcommentaries/36>

This Commentary is brought to you for free and open access by the Department of Philosophy at Scholarship at UWindsor. It has been accepted for inclusion in OSSA Conference Archive by an authorized conference organizer of Scholarship at UWindsor. For more information, please contact scholarship@uwindsor.ca.

Commentary on “Uses of Arguments from Definition in Children’s Argumentation”

DANIEL FASKO, JR.

School of Educational Foundations, Leadership, and Policy
Bowling Green State University
566 Education Bldg.
Bowling Green, OH 43403
USA
dfasko@bgsu.edu

1. Introduction

The title of this paper intrigued me because of my own interests in teaching pre-service teachers how to enhance students’ thinking. I wanted to see how arguments were used in children’s argumentation, and how they could be applied to teaching. This is an informative and interesting paper, however, its relevance to teaching was disappointing to me, especially because the author reported a case that used a “revised-Piagetian task”, (of conservation of liquids and number), in a school setting where children “spontaneously start discussions while they are solving a task given to them by an adult.”

This commentary is based on the author’s paper of an analysis of the reasoning of two five-year old children in October 2009; more specifically, the children’s use of argument from definition. To accomplish this task the Argumentum Model of Topics (AMT; Rigotti & Greco-Morasso 2009) was used.

2. Literature review

A very thorough history of the “locus of definition” is presented. It is perhaps a little too lengthy, but will be quite informative for those who are unfamiliar with the “locus of definition” literature.

3. Methodology

The analysis used data collected as part of a project involving a larger sample of students that was conducted for over 30 years by the Institute of Psychology and Education at the University of Neuchatel in Switzerland. Situations were used where an adult experimenter, in this case a female, examined children’s responses to conservation tasks developed by Piaget (1928), such as conservation of liquids.

4. Analysis

Two situations were analyzed where two children made arguments using the locus from definition. In example/situation one, both children, who will henceforth be named Andrew, who is 5.10 years old, and Ben, who is 5.7 years old reviewed a proposed issue by the adult, and then “initiate a sub-discussion” on an issue they proposed. In this case, the discussion precedes the conservation task. The children are introduced to the task via a story that involves a soft toy giraffe and “her” toy friends.

In the second situation/example, the female adult experimenter notes that the conservation of liquids task has been completed and that she is preparing the next task. The next task which was conservation of number task in which the experimenter sets up sweets of different shapes. In this situation the discussion is initiated by one of the boys when he asks what the sweets are for. The author presents an excellent analysis of the discussion between one of the children and the experimenter of “Can we eat sweets?” The author notes that children may think differently than an adult about the reality of the situation.

Both examples are analyzed in enough detail to see how the children’s reasoning progressed. That is, the analysis, using the Argumentum Model of Topics, of the two children’s reasoning in the two different situations did show that these children could provide responses indicating their beliefs and support for those beliefs during the respective discussions. Their responses were apparently beyond Piaget’s preoperational stage. Their responses suggest that young children may actually be capable of deductive reasoning which would, according to Piaget, be typical for a concrete operational child.

5. Concluding remarks

It has been reported by many scholars (e.g., Wadsworth 1996) that preoperational children’s thinking is governed by perception, rather than reasoning. This is supposedly demonstrated by preoperational children’s lack of ability to solve conservation tasks. In contrast, concrete operational children can solve conservation tasks because they are not dominated by perception, and thus they can reason more logically, more specifically, they can reason via deductive reasoning. Flavell (1971) suggested that changes in reasoning ability progress gradually. Wadsworth (1996) notes that this change begins around age 6.

Piaget’s findings have been questioned since the 1960’s. These findings, however, have been shown to be robust. For example, Siegler (1991) reported support for Piaget’s findings with large samples of children in various countries, such as Australian aboriginal children and Chinese children. Piaget’s conservation tasks have been criticized because they rely on the verbal abilities of children, and children may not be able to explain themselves well. However, children’s reasoning abilities on conservation tasks have been demonstrated using nonverbal techniques (Siegler 1991; Wheldall & Poborca 1980). Research conducted in the 1980s and 1990s indicates that Piaget underestimated the preoperational child’s reasoning abilities (Siegler 1991). This is aptly demonstrated in the present paper. It may be suggested, then, that Piaget’s theory of cognitive development does not adequately, or perhaps accurately, describe children’s reasoning at different ages—at least with young children.

It would also be interesting to see a comparison of children’s argumentation, as reported in this paper, using the same conservation tasks, to the reasoning of the youth of today. Given the experiences that our youth have with the current state of our technological age compared to that of only six years ago, perhaps their reasoning skills have changed? That is, given that children are being exposed to modern technology at an earlier age, could we not speculate that providing the same tasks to present day children might result in different reasoning?

So, where do we go from here? The author does present some very interesting prospects for follow-up research and I wish her much success in this endeavor because there is a wealth of information in her proposed agenda that would add to the literature of our current understanding of children’s argumentation. Being an educator of pre-service teachers, I would suggest that future research could focus on the applicability of this line of inquiry to teaching.

In closing, I would like to thank the author for presenting to us the results of this very interesting and informative, as well as thought provoking study.

References

- Flavell, J. H. (1971). Stage-related properties of cognitive development. *Cognitive Psychology* 2, 421-453.
- Piaget, J. (1928). *Judgment and Reasoning in the Child* (M. Warden, Trans.). New York, NY: Harcourt, Brace.
- Rigotti, E., & Greco-Morasso, S. (2009). Argumentation as an abject of interest and as a social and cultural resource. In: N. M. Mirza & A. N. Perret-Clermont (Eds.), *Argumentation and Education* (pp. 1-61). New York, NY: Springer.
- Siegler, R. (1991). *Children's Thinking*, 2nd ed. Englewood Cliffs, NJ: Prentice-Hall.
- Wheldall, K. & Poborca, B. (1980). Conservation without conversation? An alternative, non-verbal paradigm for assessing conservation of liquid quantity. *British Journal of Psychology* 71, 117-134.