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Pleading for social interaction across the Ocean :
a rejoinder to Ames and Murray (1982)

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We have been very much interested by Ames and Murray's (1982) article suggesting the "Two Wrongs Make a Right" since it illustrates and confirms several theoretical propositions we have been developing ourselves for several years. For instance, Ames and Murray have designed an experiment to test the hypothesis that : "If social conflict itself is a sufficient condition for generating cognitive growth, nonconservers should give conservation judgments as a result of their exposure to other nonconservers' conflicting and different, but equally incorrect, assertions about a conservation problem."

Now this is precisely the hypothesis we explored several years ago when we carried out a series of experiments and included among them a situation of conflictual interaction about a conservation of length problem, as Ames and Murray have done. Reports on these experiments were made in English (Doise & Mugny, 1979 ; Doise, Mugny & Perret-Clermont, 1976) summarizing the detailed research reports published in French or Spanish (see Mugny & Doise, 1978; Mugny, Doise & Perret-Clermont, 1975-76; Mugny, Giroud & Doise, 1978-79 ; Perret-Clermont, 1976). A book, as well as several contri-

butions to edited volumes, also published in English, relate further experiments, duplications or variations on this theme (e.g. Doise, 1978; Doise & Mackie, 1981; Mugny, Perret-Clermont & Doise, 1981; Perret-Clermont, 1980). And this list is far from being exhaustive as we have limited ourselves to the publications which refer to F.B. Murray's pioneering work about the effects of social interaction on cognitive growth.

We beg forgiveness for this self-referencing exercise. Its aim is not to claim some sort of conceptual priority for what we have labelled socio-cognitive conflict, especially as our ideas proceed from an ancient intellectual tradition which C. Cattaneo (1864) already formulated in clear terms. But we agree with this ancestor of ours in thinking that social interaction is beneficial not only to children but also to the development of scientific thought, and particularly when it is taking place between researchers in our own field! For this reason, we wish to let the readers of Developmental Psychology know that by consulting the publications mentioned above as well as Perret-Clermont & Schubauer-Leoni (1981) and an English translation of Doise & Mugny (1981) to be published shortly they will find full illustrations of the theoretical propositions that have guided our experimental approach. Incidentally, these theoretical principles can be summarized by the following seven statements :

1. In coordinating their own actions with those of others, children are led to construct cognitive coordinations of which they were not previously capable individually. Hence we have shown experimentally that, at a certain level in their development, children succeed in accomplishing certain cognitive tasks when they carry these out together while they do not succeed in the same cognitive tasks if working on them alone.
2. Children who have participated in various social coordinations then become capable of executing these coordinations alone. Individual progress

resulting from participation in social interaction has been observed as clearly following collective performance of various cognitive tasks such as Piagetian conservation tests.

3. Cognitive operations accomplished with respect to one set of materials and in a specific social situation nonetheless assume characteristics of stability and generality and are to some degree transposable to other situations and other materials. This effect of generalization from individual appropriation of cognitive operations following social interaction has been demonstrated primarily using different conservation tests.

4. Social interaction becomes a source of cognitive progress by virtue of the socio-cognitive conflict it engenders. In accordance with a constructive approach of cognitive development, we view this development as the elaboration of a more complex structure which reorganizes and coordinates previous regulations. It is precisely the simultaneous confrontation of different individual perspectives or centrations during social interaction that necessitates and gives rise to their integration within a new structure. It is to be stressed that, in order to be a source of development, such a confrontation does not necessarily require that the opposing perspective is cognitively more advanced than the one the child is already capable of, and indeed the child can profit from responses at a similar level or even at a level inferior to his or her own so long as the centrations that derived from them are opposed to the child's own centrations.

5. For socio-cognitive conflict to occur, the participants in an interaction must already have certain cognitive instruments at their disposal. In the same way, children will only profit from an interaction if they are already able to establish a difference between their own approach and that of others. This prerequisite of certain cognitive and social competences explains why some children may benefit from particular interactions while others, who have not acquired these initial competences, will not benefit.

6. The hypothesis of the role of socio-cognitive conflict in cognitive development allows us to offer an alternate explanation for the demonstrated benefits of "modelling" as a stimulus for conceptual growth. We suggest that the presentation of a model may set into action a social conflict between the child's own initial perception of a problem and the one displayed by the persons he is asked to observe. Puzzled as to why he is being presented with a model, the child understands that he or she is asked to overcome this conflict.

7. The regulations of a social nature that govern a given interaction constitute an important factor in the establishment of new cognitive coordinations in a given situation. A certain correspondence can exist between social regulations and cognitive coordinations which may facilitate resolution of the socio-cognitive conflict.

Finally, let us mention for those American scholars who may tend to think that they can restrict themselves to their countrymen's publications that some of these ideas are also set forth by Kamii & Devries (1980), by Damon (1981) or by Bearison (1982).

References

- AMES, G.J. & MURRAY, F.B. When two wrongs make a right : promoting cognitive change by social conflict. Developmental Psychology, 1982, 74, 642-655.
- BEARISON, D.J. New directions in studies of social interaction and cognitive growth. In : F.C. Serafica (ed.), Social cognitive development in context. New York, The Guilford Press, 1982
- CATTANEO, C. Dell' antitesi come metodo di psicologia sociale. Il Politecnico, 1864, 20, 262-270.
- DAMON, W. Exploring children's cognition on two fronts. In : J.H. Flavell & L. Ross (eds.), Social cognitive development. Cambridge, Cambridge University Press, 1981, 154-175.
- DOISE, W. Actions and judgments : collective and individual structuring. In : H. Brandstaetter, J.H. Davis & H. Schuler (eds.), Dynamics of group decisions. Beverley Hills, Sage Publications, 1978, 75-86.
- DOISE, W. & MACKIE, D. On the social nature of cognition. In : J. Forgas (ed.), Social cognition : perspectives on everyday understanding. London, Academic Press, 1981, 53-83.
- DOISE, W. & MUGNY, G. Individual and collective conflicts of centrations in cognitive development. European Journal of Social Psychology, 1979, 9, 105-108.
- DOISE, W. & MUGNY, G. Le développement social de l'intelligence. Paris, Interéditions, 1981
- DOISE, W., MUGNY, G. & PERRET-CLERMONT, A.N. Social interaction and cognitive development : further evidence. European Journal of Social Psychology, 1976, 6, 245-247.
- KAMII, C. & DEVRIES, R. Group games in early education : implications of Piaget's theory. Washington, National Association for the Education of Young Children, 1980.

- MUGNY, G. & DOISE, W. Socio-cognitive conflict and structure of individual and collective performances. European Journal of Social Psychology, 1978, 8, 181-192.
- MUGNY, G., DOISE, W. & PERRET-CLERMONT, A.N. Conflit de centrations et progrès cognitif. Bulletin de Psychologie, 1975-76, 29, 199-204.
- MUGNY, G., GIROUD, J.C. & DOISE, W. Conflit de centrations et progrès cognitif : nouvelles illustrations expérimentales. Bulletin de Psychologie, 1978-79, 32, 979-985.
- MUGNY, G., PERRET-CLERMONT, A.N. & DOISE, W. Interpersonal coordination and sociological differences in the construction of the intellect. Progress in Applied Social Psychology, 1981, 1, 315-343.
- PERRET-CLERMONT, A.N. L'interaction sociale comme facteur du développement cognitif. PhD Thesis, University of Geneva, 1976.
- PERRET-CLERMONT, A.N. Social interaction and cognitive development in children. New York & London, Academic Press, 1980
- PERRET-CLERMONT, A.N. & SCHUBAUER-LEONI, M.L. Conflict and cooperation as opportunities for learning. In : P. Robinson (ed.), Communication in development. London, Academic Press, 1981.