



WMU research may help children with autism

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KALAMAZOO -- A Western Michigan University researcher has taken the first step towards solving the problem of teaching language to autistic children who lack verbal communication skills.

Caio Miguel, a doctoral candidate in WMU's Department of Psychology, published his findings in a recent issue of the professional journal, *The Analysis of Verbal Behavior*. His research shows vocal behaviors in autistic children can be "jump started" by using a strategy known as "automatic reinforcement."

"We know when parents hear their babies talk, they provide positive rewards, such as attention, which causes the behavior to be reproduced," Miguel says. "But during a child's development, the vocal behaviors increase so rapidly, they can't be explained only by parental approval. The theory of automatic reinforcement says that as a result of some parent-child interactions, a baby's own sounds are rewarding enough to continue to be reproduced."

Although the idea of automatic reinforcement has been proposed in theory, little research has been done in the field.

"Caio's study is the first really sound experiment to actually demonstrate the phenomenon of automatic reinforcement," says Dr. James Carr, associate professor of psychology and co-author of the article.

The study involved using "pairing," a technique in which a researcher repeats a specific sound previously recorded from an autistic child. Immediately after the researcher makes the sound, a reward is given to the child. After the pairing session, the child is then monitored to note the frequency with which the sound is made without any reward given. Researchers saw immediate increases in the verbal behavior in some children, which previously had only occurred at minimal rates.

"What makes it a particularly important contribution is that the vocal behavior was increased without any external reward," says Carr.

The hard part of establishing a strategy to teach language development in autistic children may now be solved, Miguel believes.

"We already know how to produce new vocal behaviors by giving positive rewards," says Miguel. "The difficult part was getting the behavior to occur in the first place."

Miguel's research has not gone unnoticed. The Society of Behavior Analysis, a national professional organization, recently selected him for the 2003 Bijou Fellowship, an award given to doctoral students specializing in childhood behavior development.

Miguel earned his undergraduate degree in his native Brazil before coming to WMU to earn his master's degree and enter the psychology doctoral program.

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