

Background

Treatment for people with neurogenic communication disorders commonly concentrates on facilitating the communication of their needs and is in danger of sidelining the expression of attitudes and emotion. Evaluation is intrinsically involved in communication and functions in discourse to express the speaker's opinions, to build solidarity with the listener and organise the discourse (2000). The expression of emotion is of great significance because it is by sharing feelings that we can belong (Martin, 2004).

Individuals with right brain damage (RBD) are known to be impaired in the comprehension and production of emotion, but research has predominantly focussed on nonverbal and extralinguistic aspects of their discourse. The limited research on verbal expression has demonstrated that individuals with RBD are rated as less emotionally intense and are less accurate in expressing their emotions. Sherratt (2007) has found that, in personal narratives, these speakers used fewer total evaluation resources and also tended to evaluate things or phenomena more frequently than expressing their own feelings. As such, they are distancing themselves from the situation rather than indicating how they feel and thereby establishing listener empathy. Furthermore, they demonstrated greater impairment on the negative, rather than the positive, topic. This may provide some support for the valence hypothesis (see Borod, Bloom, Brickman, Nakhutina, & Curko, 2002; Wager, Phan, Liberzon, & Taylor, 2003) whereby the right hemisphere is considered to be dominant for negative emotions.

Assessing emotional expression is complex; it is subjective and value-laden and can be articulated explicitly or implicitly. Therefore it is difficult to systematize or label and few relevant in-depth analysis procedures have been developed. The appraisal framework (Martin and colleagues) has been used to analyze the expression of attitudes in a wide variety of discourse types. Using this framework, the current study extends previous research by exploring the resources used by speakers with RBD to express their feelings and/or attitudes in different genres of discourse. Therefore this investigation compares the quantity and quality of emotional expression in two genres of discourse (narratives, and procedures) expressed by speakers with and without RBD i.e. are speakers with RBD able to express emotion lexically and to what extent in narratives and procedures, and which appraisal resources do they use and in what proportion compared to speakers with no brain damage?

Method

All participants were male, British, monolingual English-speaking, community-dwelling with a minimum of ten years of education. Seven participants had been diagnosed with a single right hemisphere cerebrovascular accident and were all strongly right-handed with no diagnosed/reported visual impairments (See Table 1). Ten non-brain damaged (NBD) participants were matched for age and socioeconomic status to the RBD group. Both groups orally produced eight discourse samples. These samples represented narrative and procedural discourse (two personal narratives, two narratives elicited using sequenced pictures, and four procedures). The discourse samples were transcribed and analysed in terms of appraisal resources using the framework developed by Martin (2000) to identify the frequency and type of three appraisal resources: affect (describing how people feel), judgement (evaluating whether people's behaviour conforms to or transgresses the speakers' social norms) and appreciation (expressing the speakers' reactions to and evaluation of things). The attitudes were also categorised by the way they were graded (i.e. amplified or downplayed).

Results

A comparison of the two groups indicated that they vary not only in the quantity of emotional expression that they indicate verbally, but also in the type of emotional resources that they employ in the different genres. Quantitatively, the individuals with RBD used fewer appraisal resources than the control group in their narrative samples but performed similarly in the procedures. Of interest is the fact that the clinical group was able to express emotions to a greater extent in the personal rather than the sequence-picture generated samples. Regarding the different types of appraisal, both groups used a similar proportion; they tended to use amplification the most and judgement the least. Speakers with RBD also tended to intensify their emotions more and mitigate negative emotions less than the NBD group. It may be more socially appropriate to lower the intensity of negative emotions and this may contribute to the social deficits exhibited by this group.

Discussion and Conclusions

The novel application of the appraisal framework to the RBD population provides insight into the quantity and quality of interpersonal resources used by these speakers. Overall, they demonstrate limited emotional lexical expression in narrative tasks and had more difficulty on more negative topics. They had difficulty in providing both authorial and non-authorial lexical emotional expression and in expressing judgement and affect (in all tasks). However, in procedures they produced similarly restricted emotional expression to the group without brain damage; such limited expression in procedures is appropriate to the task.

Individuals with RBD are considered to be socially disconnected from the world around them (Myers, 1999). This may be accounted for by their restricted verbal emotional expression as this aspect of communication is important in building solidarity, in inviting empathy and therefore in belonging. The approach elaborated in this study may provide some further insight into the specific social difficulties of individuals with RBD, and possibly other similarly impaired populations, as well as contribute more appropriate and relevant treatment approaches. From this analysis of discourse genres, it is apparent that assessment should include a variety of topics, discourse genres, interlocutors and situations in order to determine not only the quantity and types of appraisal used by speaker, but also how appropriate they are to the topic and listener.

Affective difficulties following brain injury are among the most important factors influencing the outcome of rehabilitation and often produce the greatest burden for family members and rehabilitation staff, as well as causing the greatest difficulty for long-term social reintegration (Borgaro, Prigatano, Kwasnica, Alcott, & Cutter, 2004; Karow & Connors, 2003). The difficulties of people with RBD in processing emotion have marked effects on interpersonal interactions (Lehman Blake, 2003). Thus the assessment and treatment of evaluation should be an integral part of rehabilitation if this much-neglected clinical group is to receive adequate care.

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Table 1: Details of participants with RBD

	Age	SES*	Time post onset	Site of lesion
S1	70	II	60 mths	RH haemorrhage
S2	70	IV	34 mths	R. post-occipital, post. internal capsule, partly fronto-parietal infarct.
S3	77	III	36 mths	R external capsule and thalamic nucleus infarct
S4	67	III	35 mths	R fronto-parietal cerebral infarct
S5	72	II	37 mths	R occipital lobe infarct
S6	77	II	36 mths	R temporo-parietal infarct
S7	54	III	36 mths	R parietal infarct
Mean RBD	69.6 (54-77)		38.3 mths (34-60 mths)	

*SES (Socioeconomic status)(OPCS, 1992)

II =Intermediate/technical managers

III = skilled manual and non-manual

IV =unskilled