Humor as a Social Lubricant in an Expert
Thinking System

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Abstract: The affective state of the thinker is an important dimension when addressing a chosen problem. Inducing positive affect has favorable effects on the ability to problem solve. Humor is one of the most common ways that individuals produce positive affect. It is embedded in the social processes between individuals, relevant to context and audience, producing affect that reduces tension and anxiety, allowing individuals to be spontaneous and less rigid. This paper discusses the research results of an instrumental case study that charted the role that humor played in the formation of working relationships in a system of four novice group facilitators. The participants engaged in an intensive collaborative process of meaning making, i.e. understanding patterns of group development, melding theory to practice, and illuminating the impact of intervetion on a group's developmental trajectory. This promoted qualitative changes in their levels of expert cognitive and metacognitive thinking skills. Humor facilitated the development of these skills in unexpected ways. Data sets included videotaped debriefing and planning sessions, individual and group interviews, and written reflection diaries, covering the entire lifespan of the team. Two primary humor processes were fostered within this system: Use of Humor-affective, which were humorous statements directed to the emotional dynamics within the team; and Use of Humor-cognitive, which were directed more to the meaning-making processes of the participants. A public safe space is necessary to interface embodied, narrative, relational knowledge and professional knowledge expressed in practice. This blending of epistemic sources is key to expert thinking. Communities of practice are not immune to issues of power, and can be places where hegemony precipitates alienation. This inquiry suggests that humor served to diffuse power constructions, and facilitated the evolution of ease within the social relationships, fostering challenge and risk-taking. An ethic of care sculpted humor into a positive system characteristic.

Keywords: Humor and Expertise Development in the Workplace, Metacognition and Humor, Humor and Social Learning Relationships

THE AFFECTIVE STATE of the thinker is an important dimension when addressing a chosen problem. Inducing positive affect has favorable effects on the ability to problem solve (Isen, 1999; Russ, 1999; Vosburg & Kaufmann, 1999), a hallmark of expertise development. It is:

- associated with cognitive flexibility, elaboration, fluency, and improvised problem-solving;
- linked to the ability to organize ideas in multiple ways and access alternative cognitive perspectives;
- a motivating force to persist longer and do more; and
- associated with innovative responding, risk-taking, exploring, putting out novel opinions, and variety-seeking among safe alternatives.

Humor is one of the most common ways that individuals produce positive affect. It is embedded in the social processes between individuals, relevant to context and audience, producing positive affect that reduces tension and anxiety, allowing individuals to be spontaneous and less rigid. It creates a climate of optimism and a relaxed mood that fosters learning, an especially crucial ingredient when acquiring expertise. Firestien and McCowan (1988) identified humor as a communication process that increases the number of ideas; as well, it has been associated with promoting the consideration of a wider range of options (O'Quin & Derks, 1997). Positive and satisfying social relationships create denser webs of communication, allowing for more collaboration to occur. However, charting the evolution of these processes has not been extensively documented. In particular, though humor and expertise acquisition have been linked as important co-existing qualities (Farr-Petterson, 1996; Martin, 1997; Knapp, 2000; Verner, 2001), there are to date no investigations that explore the relationship that humor can play in promoting expert thinking skills.

Research Question

The research questions at the start of the inquiry emerged from gaps within the literature in providing group-based supervisory experiences for novice group facilitators and process consultants. One question in particular was:

- What role do relationships contribute to a system that engenders shared expertise?

Theoretical Frameworks

The primary framework is Vygotsky's (1978; 1987) theory of learning and cognition that emphasizes social and cultural interactions. Cognition is an adaptation of the individual's consciousness to social and cultural interactions with the learner as an active agent in relation with other active agents. Lave and Wenger (1991) anchor learning in the process of co-participation and social engagement. Knowledge does not just reside in the head, but also in the meanings, relations, and skillful executions of praxis. Learners participate in communities of practice (Wenger, 1998) and mastery requires newcomers to move from the periphery towards full participation as an expert in the socio-cultural practices of the community. Cognition and expertise are seen as embedded in social relationships, which may be characterized by positive affect, situated in authentic contexts and nested and negotiated within a culture of practice.

Methodologyss

Methods

This project examined the role of relationships in the evolution of an expert thinking system. A qualitative methodology was selected since it is conducive to understanding meaning attributed to certain events, how context influences actions, and the process by which events and actions take place (Maxwell, 1996). In addition, an evolving systems approach (Gruber & Wallace, 1999) was used in order to provide an account of this system's unique trajectory and functioning. A system is a unique yet socially interactive entity and is distinct because of its effective reciprocal social relationships within its subsystems. This project also used an instrumental case study approach (Stake, 1994; Yin, 1994). The case was defined as a group of novices who were to be teaching assistants. They were to function as learning-group facilitators, assisting undergraduate students in learning about group processes and development, using the skills of process consultation. Individuals were seen as subsystems within the case.

Participants

The participants were a team of 4 women, aged 23 to 45, who assisted in implementing a university course on working in groups, functioning as novice facilitators for learning task groups of students. As the instructor of the course, the author was included on the team as the designated expert.

Data Collection

Various sources of data were used to map this group as a coherent knowing system. In that expertise is acquired over time, and the progression of expert thinking is an on-going process (Sternberg, 1998), a developmental approach was taken.

Processing sessions. Directly after each class, the team convened to debrief and conceptually process the time each facilitator spent with her task group. The focus was on creating a reflective dialogue in which the participants could share their observations, stories, and understandings. Novices could identify dynamics or actions they took, and subject them to critical consideration. These sessions were video taped in order to allow the voices of the participants to be clearly recorded, and to create a full record of a social event (Adler & Adler, 1994).

Individual interviews. As well, interviews were conducted in order to have participants describe their lived experience within the team (Kvale, 1996).

Final group interview. A group interview was carried out, that is, the systematic, formal questioning of all the participants simultaneously (Fontana & Frey, 1994) in order to give the participants an opportunity to sum up their experience and to provide a richer data set. Group interviews tend to have a synergistic effect, generating more associations and insights (Morgan, 1997).

In order to promote trustworthiness, several safeguards suggested by Lincoln and Guba (1985) were used in order to provide a series of checks and balances.

Modes of Analysis

The videotapes were transcribed and rendered into text for analysis, and were considered as a series of collective "think-aloud protocols", a common approach for illuminating cognitive performance (Chi, 1997; Young, 2005). Statements that elicited laughter or chuckling were deemed humorous. Coding was done using open coding (Strauss & Corbin, 1998). Rather than coding in disconnected, parsed categories to be reconnected later, a technique suggested by Dey (1999) was used. "Category strings" were generated in order to retain a holistic sensibility to the analysis. The string [a major process representation] contained strands that represented major categories. Each strand contained particular knots that represented subcategories. Therefore, subcategories were linked to the major categories, which were linked to representations of thinking and humor processes, all connected through meaning.

Results

Humor as a Social Lubricant

A surprising, unexpected property of the social system was the infusion of humor into the social relationships of the team. Table 1. shows the frequency and rhythm of the code string for the process category of humor.

Two different humor processes were fostered within this system: *Use of Humor-affective,* with a total of 53 codings were humorous statements directed to the emotional dynamics within the team; and *Use of Humor-cognitive*, with a total of 175 codings were directed more to the meaning-making processes of the participants, i. e. these statements were focused on understanding the patterns of group development, melding theory to practice, and illuminating the impact of intervention on a group's developmental tajectory.

Use of Humor-affective. The affective strand was minor in terms of frequency, but served an important function to defuse potentially blocking emotions as exemplified in the knots *affective-fear / anxiety*, which were verbalizations that attempted to express apprehension, concern, stress, tension or self-doubt through the use of humorous comments or jokes.

> Catherine: *I need a really stiff drink right now*. (processing session 9)

Affective-relieving tension or uncertainty represented comments that attempted to alleviate strain, disequilibrium, or ambiguity through humor.

> Catherine: *I need a really stiff drink right now.*
> Rosemary: *Have a mint.* [Laughing] *Have another... make that a double.*
> Opal: *Yeah, have a double.* (processing session 9)

Humorously addressing strong and potentially obstructing emotions had the effect of transforming this emotional energy, and releasing it back into the system for productive work. After these humorous interludes, the novices could more effectively make meaning of the events in the group with increased cognitive clarity. Their own emotions were not their overriding preoccupation.

The knot *affective-playfulness* injected fun into the social interactions.

> Rosemary: *And did he say what his job was?*
> Catherine: *Yes. He's a* [an unusual, secretive, and dangerous profession].
> Opal: *I thought you were going to say he was a stripper.* [Laughing] (processing session 8)

This balanced more inhibiting factors and contributed to a sense of enthusiasm for working and learning with this team.

> Lara: *I also learned a lot and I had a lot… a lot of fun.* (final group interview, August 28)

Use of Humor-cognitive. If the affective strand transformed emotional energy, the cognitive strand transformed thinking. The dominant knot in this strand was *cognitive-irony / exaggeration to make a point*. These were utterances that addressed the content of the interaction through the use of a sardonic, incongruous, satiric, witty, or extravagant comments or jokes. This was by far the predominant use of humor. Taking a bit of time to develop, this knot made a very strong showing in session 3, and maintained a high level throughout the rest of the group's life. Most of these interactions tended to have the effect of highlighting the salience of a particular dynamic using a joke, linking the event to a concept within the domain, such as the power of the authority figure.

> Rosemary: *Someone said, "Does that mean we can bribe her* [Lara]*?" And I went, "No, it doesn't".*
> Lara: *It was so cute, they're like* [eyes and mouth wide open]*... it was like the voice of God coming in.* (processing session 3)

It served to illuminate and extend the meaning of an interesting group undercurrent. Opal described the introduction of a new group member to the group's ground rules.

> Opal: *Then Rona showed Isabel the norms, and then a couple of them went over each and every norm and explained them all, and made sure that Isabel understood each norm. It was hilarious.*
> Rosemary: *We're going to talk to everybody else through you, Isabel.* (processing session 4)

It also functioned as an opportunity to poke fun at ourselves to avoid overanalyzing.

> Rosemary: *Your group was the next longest, then your group. But in the middle of a sentence, she stopped.*
> Ann: *What does that say?*
> Rosemary: *I don't know.*
> Opal: *H'mm... What would Freud say about that?* (processing session 2)

In this way, with an increased sense of social ease, relationships could flourish, and because of the off-centered perspective that humor can bring, thinking patterns were subtly transmuted and shaped. In a fun

atmosphere, the novices were more willing to be open to and influenced by others, and in turn to share and influence.

The other knot, *cognitive-challenge others' point of view*, was defined as statements that attempted to question or confront a perspective, behavior, or thought process through the use of a humorous comment or a joke. This was most often used to confront the team's implicit theories or unstated assumptions that were influencing behavior or perceptions.

> Ann: *But I said that, as a group, they should go back here. So... they went. I noticed...*
> Rosemary: *Isn't it nice to have a group that does what it's told?* [Laughing] (processing session 8)

The final knot in this strand was *cognitive-reference to group history*. These were statements that made explicit links between the current topic under discussion and some event from the past in the groups' history, or a past event in the classroom group, through the use of a humorous comment or a joke. This type of humor served to create parallel examples of the same dynamic.

> Opal: *Nobody said anything. So I said, "Was the question too long? Shall I break it up?"*
> Rosemary: *"...because this is what Rosemary does to me."* [Laughing] (processing session 12)

Support from triangulated sources. Humor was an important personal quality that was imported into the system via the participants.

> Ann: *... this is risk taking and I did it and I thoroughly also enjoyed it and I thought we had a lot of laughs and that was important to me.* (final group interview, August 28)

It had the effect of creating an informal, comfortable group climate, which contributed to a sense of greater social ease.

> Opal: *Ah... informal. There's humor. It's informative. It's open. Ah, I like the... ah... I like the atmosphere. The climate is very comfortable for me.* (personal interview, July 26)

This social ease lubricated the relationships, facilitating learning and constructing an emotional climate conducive to promoting expertise and buffering the tensions in challenging each other.

> Lara: *You know what* [contributed]? *Ann's sense of humor.*
> Opal: *Yeah.*

> Lara: *I love your sense of humor. I've laughed so hard this summer.*
> Catherine: *Yeah.* (final group interview, August 28)

However, was there a deeper connection between the use of humor, and the promotion of expert skills?

Humor and Expert Thinking Skills: Code Proximity Relationships

When examining process variables in human interaction, it is also important to explore the interplay of the various processes identified with each other. A previous paper (Reilly, 2005) described this system as an expert system. Table 2 reproduces the patterns and frequencies of the coding for the novices' [N] metacognitive and cognitive use of expert-like thinking skills. In an effort to unfold a pattern between the use of humor and the promotion of these skills, the proximal relationships of the strands and knots within the expert thinking string and the humor string were scrutinized. Using the functions within the analytic software program *HyperResearch,* a series of connections based on the relationship "overlap" (i.e. code 1 in the chunk overlaps or intersects code 2) were developed. Since the code frequencies for *Humor* were not on a par with those of *Expertise*, and since humor was not the focus of the inquiry but an unexpected property, a minimum number of 9 connects per expertise knot was set a priori for positing an association. This was enough of a frequency to merit consideration as a pattern. Strength of association was determined using the following criteria:

- 9 to 13 connects-- a weak association;
- 14 to 19 connects-- a low association;
- 20 to 29 connects-- a moderate association; and
- 30 or more connects-- a strong association.

Table 3 illustrates the association patterns of note between expert thinking knots and the humor codes. Each of the skills will be discussed briefly in turn.

Metacognitive skills. The two metacognitive skills, *reflective practice-N* (important in promoting thinking about and critically analyzing one's actions with the goal of improving one's practice) and *self monitoring-N* (important in alerting the individual to the progress they are making, and if the avenue being pursued is fruitful) showed a low association to the humor string, but was supported by many of the humor processes, especially the knot *cognitive-irony exaggeration to make a point*. Generally, the humorous statement preceded the metacognitive skill, suggesting that humor served to sometimes stimulate the metacognitive skills.

Expert thinking skills. Though each of the novices' expert thinking skills showed some association with the humor processes, the two that showed strong associations were *description-structural/organizational-N* (which points to the growing ability to interpret and evaluate processes focusing on inherent, implicit, and intrinsic structural elements) and *description-superficial-N* (sharing some of the narrative details since this allowed the audience to vicariously "view" the event as if by remote), especially to the humor knot of *cognitive-irony exaggeration to make a point*. These expert skills are extremely important, and indicative of the development of expert-like thinking (Glaser & Chi, 1988). Humor both preceded the skill of *description-structural/organizational-N*, indicating that it may have served to evoke a further structural description, as well as following the skill. For *description-superficial-N*, the humorous response followed the description, suggesting that humor functioned to create warm feelings and a sense of connection between the speaker and the audience.

Problem representation-N-mental model and *problem representation-N-metaphoric image* both showed low associations to the humor string, with *cognitive-irony exaggeration to make a point* as the most dominant association. These two expert skills are indicative of expert thinking that reflects a holistic coherent understanding of a problem, explicitly linking theoretical concepts and principles to practice bridging the gap between abstraction and application, either using facts or concepts or a metaphoric image. In the case of *problem representation-N-mental model*, humor preceded the skill, again suggesting that humor may evoke an expertise skill, while for *problem representation-N-metaphoric image* humor followed the skill, indicating that it may also function to show agreement with a certain conceptualization.

Problem representation-N showed only a weak association to the humor strand, with two-thirds of the associations being to *cognitive-irony exaggeration to make a point*. Humor followed this skill, intimating that humor may play only a small role in assisting the development of this skill, and only in the sense of communicating a common understanding of the problem representation.

Except for the knots *description-structural/organizational-N* and *description-superficial-N*, the association between humor and the skill under investigation shows a clear but low association. Therefore, one can conceptualize humor as influencing the development of expertise, though it may not be the determining stimulus. Rather it may function as a lubricating influence that smoothes interpersonal relationships to make the system perform more fluidly.

Discussion

Within this inquiry, humor addressed the affective and cognitive life of the group, and also may have contributed in a small but noteworthy way to the development of expert thinking skills. Getz and Lubart (1999) postulated that emotions can act as a conative variable motivating a process [humor motivated participants to engage with the system and each other in order to develop expert thinking skills]; as a contextual variable whose state influences a process [humor provided a social lubricant to ease tensions and facilitate warm, responsive relationships]; and as a functional variable, which may stimulate specific concepts [humor preceded the expert thinking skill, and acted as a catalytic stimulus for certain expert processes]. Humor within this context motivated, influenced, and stimulated the novices, adding fun and enthusiasm to the social interactions, initiating the emotional and cognitive conditions that would promote expertise.

Connelly and Clandinin (1995) noted that a public *safe* space is necessary to interface embodied, narrative, relational knowledge with the professional knowledge expressed in practice. Along with creating cognitive understanding of another's point of view, empathy can also be an emotional visualization. Humor served as a way to express empathy, and also functioned to defuse empathy-inhibiting emotions. This blending of epistemic sources is key to expert thinking. Communities of practice are not immune to issues of power, and can be places where hegemony precipitates alienation (Lave & Wenger, 1991). Humor served to diffuse tension, fear, and power constructions. It is important to note that an ethic of care sculpted humor into a positive characteristic. It is doubtful these trends would have been seen if the humor had taken on the tone of sarcasm or mean spiritedness. Supervisors in practice settings can use humor blended with care as one of the many tools to help facilitate the evolution of expert thinking.

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Table 1: Frequency Table of Code String for the Process Category of Use of Humor

Code String	Sessions												Total
	Early Sessions 1-3			Middle Sessions 4-9						Late Sessions 10-12			
	1	2	3	4	5	6	7	8	9	10	11	12	
Use of Humor-affective-													
express fear / anxiety	5	-	1	-	5	-	1	1	2	2	1	-	18
playfulness	5	5	2	1	-	-	-	4	1	-	2	1	21
relieving tension or uncertainty	2	1	1	1	-	-	1	3	3	-	1	1	14
Use of Humor-cognitive-													
challenge others' point of view	2	1	4	1	-	1	1	3	1	1	-	-	15
irony/ exaggeration to make a point	-	5	18	10	7	17	7	13	20	6	20	20	143
reference to group history	-	-	1	-	2	2	-	-	2	-	3	7	17

Table 2: Frequency Table of Code String for the Process Categories of Expertise

Code String	Sessions												Total
			Early Sessions 1-3			Middle Sessions 4-9		Late Sessions 10-12					
	1	2	3	4	5	6	7	8	9	10	11	12	
Expert-metacognitive													
reflective practice-N	14	24	26	15	32	18	16	10	35	4	10	47	251
self monitoring-N	16	15	24	13	28	24	16	19	24	8	23	32	242
Expert-thinking processes													
description-structural/ organizational-N	21	30	49	51	40	39	44	61	63	36	63	66	563
description-superficial-N	37	25	49	32	28	27	17	44	25	36	32	38	390
perception of meaningful patterns-N	3	4	8	2	5	2	4	5	8	-	1	1	43
problem representation-N	23	6	25	18	34	7	21	22	46	34	35	22	293
problem representation-N-mental model	9	6	6	5	20	11	10	8	17	11	8	4	115
Problem representation-N-metaphoric image	-	-	6	-	1	2	1	5	6	3	2	5	31
solution generation-N	2	1	4	4	14	-	1	3	8	12	8	-	57

Table 3: Association Table of Expert Metacognitive and Thinking Code Strands with the Process Category of Humor (9 or more associations)

Humor Process Strands	Use of Humor-affective-			Use of Humor-cognitive-			
	express fear/ anxiety	playfulness	relieving tension or uncertainty	challenge others' point of view	irony/ exaggeration to make a point	reference to group history	Total
Expert-metacognitive							
reflective practice-N	--	1	2	3	11	2	19
self monitoring-N	2	1	--	4	13	--	20
Expert-thinking processes							
description-structural/ organizational-N	--	2	3	4	45	6	60
description-superficial-N	3	6	2	--	34	1	46
problem representation-N	1	--	1	--	6	1	9
problem representation-N-mental model	--	--	2	2	10	--	14
problem representation-N-metaphoric image	--	--	--	4	10	1	15

Key:
9 to 13 -- weak
14 to 19-- low
20 to 29-- moderate
30 or more-- strong

About the Author

Dr. Rosemary C. Reilly
Dr Reilly received her PhD in Educational Psychology from McGill University. She has a primary interest in the development of social creativity and shared expertise, as well as formal and informal learning and change processes in the workplace and in community settings. Additional interests include professional education of group workers, parent education, and qualitative and mixed methods research methodology.

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