

# Journal of Business Ethics

(ISSN:1001-1749) UGC CARE GROUP-II JOURNAL Email id:

[chandrasakher.joshi@nift.ac.in](mailto:chandrasakher.joshi@nift.ac.in)

[tulika.mahanty@nift.ac.in](mailto:tulika.mahanty@nift.ac.in)

## INDIVIDUAL DIFFERENCES AND EMOTIONAL CONTAGION DURING AN UNPLEASANT CHANGE PROCESS

Dr.Chandra Shekhar Joshi, Dr.Tulika Mahanty

1Department of Fashion Technology, National Institute of Fashion  
Technology, New Delhi, INDIA; [chandrasakher.joshi@nift.ac.in](mailto:chandrasakher.joshi@nift.ac.in)

2 Department of Leather Design, National Institute of Fashion Technology,  
New Delhi, INDIA; [tulika.mahanty@nift.ac.in](mailto:tulika.mahanty@nift.ac.in)

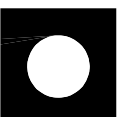
### ABSTRACT

People unconsciously imitate the emotions expressed by others, interpreted through facial expressions, voice, body gestures and even facial skin tone and hue. Emotions are, therefore, contagious, often leading to either positive or negative convergence and thereby influencing the behavioural tendencies of the group members. Since specific emotions and their intensity induces favourable or unfavourable responses to any event, incident, person etc., favourable emotional convergence is a prerequisite of the change process, particularly during situations when emotional turmoil is high. For instance, individuals with higher emotional intelligence (EI) are more likely to evaluate the change events before emotively responding to them. Similarly, emotional aperture, an individual's ability to assess group emotions, can be critical in reducing the extent to which emotional biases may jeopardize, even the positive change process. Hence, this article attempts to explore the relationship, if it exists, among EI, EA and emotional convergence in collectives during a change process, so that organisations can predict the likelihood of a favourable response from the employee collectives during times of change.

**Keywords:** *change, emotional contagion, emotional aperture, collective emotions, convergence*

### I. INTRODUCTION

Beyond the persistent threat of being infected with Covid -19, the mental health of people across the world has also become highly pernicious because of the prevailing pandemic conditions. Information overload on news and social media and restrictions on physical movement has left people perplexed, helpless and uncertain, at the very least. As a matter of fact, human-to-human transmission of the virus is not the only contagion which policymakers and organizations have to grapple with; subtle yet simmering contagion of fear and uncertainty also poses a formidable challenge.



Spreading and sustaining positive emotions such as hope and optimism amongst people and employees is the only way forward.

Emotions are important because they significantly influence one's thoughts, attitude and behaviour and override cognition during decision-making, more so when one perceives a threat in the environment. Probing deeper into the real-time functioning of the human brain, Damsiso even claimed that 'we are not thinking machines, we are feeling machines, that think' (2005). However, feelings are not merely intrapsychic in nature; individuals are equally prone to catch and imitate others in their emotional display. Facial and vocal expressions, body gestures and even changes in facial skin tone and hue provide cues through which people engage reciprocally in identifying, interpreting and mimicking each other's feelings. Even though emotions are more contagious during physical interactions, they can get transmitted through virtual interactions, as well (Chesin, Rafeli & Bos, 2011).

Concomitantly, unforeseen events, new circumstances and times of change, such as prevailing pandemic conditions, may induce contagion of intense negative emotions and hence increase an individual's propensity to engage in erratic behaviour. This is of particular concern for the organizations operating on virtual platforms, who are not only fighting to come to terms with the unprecedented market disruption caused by the Covid-19 pandemic but are also finding it increasingly hard to engage their employees in the labour process. Frantic phone calls to monitor progress, back-to-back meetings to compensate for the lack of physical interactions and venting of pent emotions on social media platforms have become even more overwhelming for the workers than the threat of catching the virus itself. The capability of managers to quickly recognize collective emotions and thus assess the situation may be critical for the well-being of the people involved in such emotionally intense and high stake situations (Burks-Sanchej & Huy, 2009). Furthermore, individuals who are more expressive in their emotional display or are looked at by the other members of the collectives as role models can induce collective hope and optimism in such turbulent times of dismay and uncertainty.

Given the significance of individual and collective emotions for a variety of individual and organizational outcomes, extant literature has gauged extensively into how individuals differ in discriminating between different emotions felt by oneself and those displayed by others (emotional intelligence - EI) in their abilities to identify group emotions (emotional aperture measure - EAM) and susceptibility in terms of catching other's emotions (emotional contagion - EC). While extant studies have also looked at causal relationships of EI with personality traits (BFI) and emotional aperture measure (EAM), none of the studies has looked at what traits of an individual make them more likely to trigger a positive emotional contagion amongst the collectives. This study attempts to bridge this gap by exploring the causal relationships between EI, EAM and BFI. Besides, this study also attempts to explore how corresponding individual differences affect the convergence of group emotions, particularly under stressful conditions. The findings would help policymakers and organizations to identify employees who can not only accurately assess the changes in the collective emotions of the employee cohorts but can also be utilized to trigger a contagion of positive emotions, such as hope and optimism. Employees with a disposition towards catching and displaying positive than negative emotions (rose-tinted bias) can perhaps play a crucial role in sustaining positivity in such turbulent times of change and, in particular, amongst the groups who are experiencing more negative emotions as a collective.

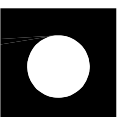


## Emotional Contagion

Often used interchangeably in the extant literature, emotions and feelings differ significantly, feelings being merely a subjective experience process of the emotional episodes (Scherer, 2005). Beyond feelings, emotions also involve bodily symptoms, expression of such feelings and action tendencies, which result from a such affective appraisal of an internal or external stimulus as relevant to the major concerns of the organism (Scherer, 2001). The term emotion is generally used to connote the subjective experience process of an appraisal-driven response to the external or internal stimulus as relevant to the major concerns of an organism. The three most basic types of affective experiences are dispositional affect (long-term stable variable), emotions (intense, relatively short term affective reactions to a specific environment stimulus, and moods (which are weaker, more diffuse affective reactions to general environment stimuli leading to unstable, short term intra – individual changes) (Barsade, 2002). The psychological processes which eliminate negative emotions differ from those which enhance positive emotions, as well the action tendencies, though both positive and negative emotions are connected. Positivity impacts observable behaviours. Positive emotions aid intellectual, physical, social and psychological resource building, which creates a buffer and may enhance resilience at times when negative emotions are being experienced, though there are fewer basic positive emotions than negative emotions (one for every three to four negative emotions) (Fredrickson B., 2002).

Emotions play a significant role in an individual's life because they are feelings which enliven life, allowing us to experience the joys and grief of our lives (Sadrd, 2013). Human beings have two minds, a thinking mind and a feeling one. These two minds, put together, form an individual's mental life. Intergroup emotion theory illustrates how individual empathetic emotion then converges to become collective and the faced infusion model (Forgas, 1995, 2000). The appraisal tendencies of empathy are societally focussed, creating perceptions of similarity with those in need and translating to altruistic behaviours and helping (Yasmin Tibi-Elhanany, 2011). Pure emotions are a rare phenomenon; most people react to everyday life by experiencing a blend of emotions. This emotional ambivalence may also be a consequence of counterfactual thinking, which is prevalent in the workplace because of its complexity. People interpret negative emotions as being in dangerous or unsatisfactory situations and hence react more carefully in subsequent situations; similarly, contentment represents certainty hence reducing the systematic processing of information by individuals interpreting it. There is a congruency effect of emotions by mirroring the diagnosis of the environment and emotions being experienced by individuals (Fong, 2006). Theory of reasoned action (TRA) suggests that one's intention (It is hypothesized that this may be affected by the emotions being experienced incited by a specific stimulus, predominantly and its valence ) to engage in a particular behaviour affects the 'will' of that person to engage and make efforts to perform that behaviour, whereas Theory of planned behaviour (TPB) extended TRA to include non – volitional behaviour and revealed that perception of control to perform the behaviour is an additional predictor of the behaviour itself (Conner & Sparks, 1996).

Emotion-cognition interaction generates experiences and behavioural tendencies, which range from momentary to stable phenomena (Izard). There is growing evidence that emotions have significant causal roles in ordinary as well as critical thinking, decision making and action (Al., 2006). Predominant emotions and intensity amongst an individual may have an influence on the decision-making process on day to day basis. Emotions are high during the transitional period of change or when an organization is facing a crisis.



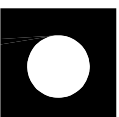
One's intention to engage in a particular behaviour affects the 'will' of that person to engage and make efforts to perform that behaviour (Theory of reasoned action (TRA)). Perception of control to perform the behaviour is an additional predictor of the behaviour itself. Feelings affect people's judgements or choices within a decision process in those cases where the feelings are experienced as reactions to the imminent judgement or decision.

## **Emotions In Organisations**

The emergence of the service sector is one of the key features of the new economy, giving rise to new forms of employment, including both; producers and users of information technology as a means of value extraction (Nolan, 2004). Operating under volatile market conditions, organizations are no more stable and tangible entities but are increasingly becoming dynamic and nebulous; change has become a new norm. The nature of employment and corresponding emphasis upon knowledge has placed 'employee' at the centre stage of market economies; employee cooperation and willingness to share knowledge and, thus, how employees feel at work have become paramount for organizational effectiveness and success. Employees are much more engaged when they feel positive about their work, perceive colleagues and co-workers as friendly and cooperative and see their organizations as positive organizations. Reciprocally, being seen as happy and engaged at work has also become a hallmark of an engaged employee and hence a desirable employee characteristic.

Employees believe that expressing genuine emotions, particularly negative ones such as anger, frustration, and stress, at the workplace, is taboo, could be viewed negatively by the managers and co-workers and thus will impeding to their career success. So emotions are generally bottled up, simmering over weeks, months or years and cause real problems down the line. The repressed collective emotions, if left unaddressed, are likely to have a negative impact on workplace dynamics and employee efficiency. If managers attempt to slide the issue under the carpet by sabotaging the resentment, then the collective emotions may become too intense and become unmanageable for the organizations. Employees are particularly vulnerable during the change process and may develop strong feelings either in favour of or against the change process. For instance, if the organization is planning to introduce a new welfare policy, regardless of the merit of the policy, employees would form strong attitudes with limited information at hand and thus take extreme positions emotionally.

It is important for organizations to effectively manage individual and collective emotions within their organizations, particularly during downslides or changes. Any change proposal induces uncertainty among the employees and triggers the contagion of specific emotions because of conflicting roles and interests and idiosyncratic in perceived implications (Lazarus, 1991, Cyert and March, 1992). Patterns of shared emotions hence become valuable information regarding the employee perceptions towards the change process and provide a significant tool in the hands of managers to minimize resistance and effectively manage change (Huy, 2007). Successful execution strategies are those that have had buy-in from all levels of management, so the creation of a culture where collective emotions are shared with and addressed by the appropriate individuals is vital to the health of any organization and critical to the success of new projects and policies. One way to break the barrier is to actively encourage genuine emotional expression in a climate of relative psychological safety, regulate the process of how emotions are disseminated and propagated and thus minimize the chances of 'negative emotional contagion' across organizations.



Characteristics of the collective emotions like individual differences in expressing emotions, spread, dimension and valence of individual emotions, and individual ability to influence group emotions provide important diagnostic tools to gauge specific group tendencies towards organizational interventions and changes (Van Zomeren, Spears, Fischer, and Leach 2004). For example, fear induces risk-averse behaviour in times of change because people experience lower levels of personal control (Lerner and Keltner 2001) and thus indicates the possibility of resistance by the employees. Feelings do not emanate from cognitive and rational evaluation of organizational conditions; rather arise from individual and group perceptions of favourable or unfavourable consequences of the change event (Frizda 1988). Emotions help prompt or inhibit certain behavioural tendencies amongst individuals. (Kemper 1978, Ekman 1992, Depaulo and Friedman 1998, Keltner and Haidt 1999) and thus, employee behaviour is a function of individual and group perceptions towards the perceived outcome of a change process. There is ample empirical evidence to suggest from neurophysiological data that perception of emotionally salient events is formed even before the cognitive processes are deployed, and this even happens with limited information about the event of change (Huebner).

Emotions are shared and reciprocated at the workplace as people have similar interpretations, experiences, identities, and organizational culture (Van Maanen & Kunda, 1989, Schein, 1992; Macki, Devos & Smith, 2000). Emotional contagion is another mechanism through which clusters of shared emotional experiences are produced almost non-consciously in a variety of organization settings (Totterdell, Kellert, Teuchmann & Briner, 1998; Bartell & Savedra, 2000; Barsade, 2002; Totterdell et al., 2004). There are temporal shifts in collective emotions and experiences during the change process (Eisenhardt, 1989; Hackman, 1993; Huy, 1999, 2002); people tend to narrow down and focus their attention on a few individuals (Masuda et al., 2006) rather than all members of the organizations.

### **Emotional Expressiveness and Its Influence On Attitude, Behaviour & Decision Making**

When the criteria of decision-making are ambiguous and the impact unknown, emotions play a vital role in decision-making, which are activities when triggered, lead to specific appraisal and action tendencies that affect decision-making (Anger is perceived as personality offensive and leads to the appraisal that others are responsible for subsequent events and translates in retaliatory action tendencies which are aimed at preserving self-esteem). Thus emotion infusion affects the re-evaluation of alternatives and hence leads to a different outcome than had been under rational criteria alone (Alan R. Muller, A theory of collective empathy in corporate philanthropy decisions, 2014). Emotional intelligence factors into the process of sharing emotions and hence plays an important role in decision-making. Types of emotions can be suitably described by the Circumflex model of emotion, which is supported by both physiological levels and psychological levels, where valence, i.e. degree of the pleasantness of emotions represented by an x-axis and energy level at which emotions are expressed, are represented by y-axis (Barsade, 2002).

There is evidence that no decision-making can happen without emotions. CLORE et al. (1994) argue that feelings affect people's judgements or choices within a decision process in those cases where the feelings are experienced as reactions to the imminent judgement or decision. Basic emotions affect action but do not influence higher-order cognition. Feelings which are influencing, in fact, are emotional schemas, as thinking is a key agent in regulating and guiding behaviour which stems from emotional schemas



(Izard C. E., Emotion Theory and research: Highlights, Unanswered questions and emerging issues), which are emotion-cognition interaction that generates experiences and behavioural tendencies which range from momentary to stable phenomenon. Emotional feeling, whether at a conscious level or phenomenal level (non-linguistic, when you know you are experiencing emotion but can't express it in words), has the power to motivate and regulate cognition and action. The role of emotional feelings in influencing cognitive processes such as decision making are difficult to identify and describe in words (Langer 1982), There is growing evidence that emotions have a significant causal role in ordinary as well critical thinking, decision making and action (Demartino et. al., 2006). Emotions are phenomena with diverse intensities and retain casual properties even at low intensity (Izard 2007a).

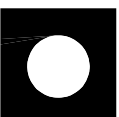
Thus interrelation of the plethora of emotions, their valence and intensity experienced by an individual most frequently are likely to impact the regulation of emotion and empathy, which are characteristics of emotional intelligence. There is sufficient evidence that feelings influence decision-making inter-relation of moods, emotions and emotional schemas (relatively stable interplay of feelings and cognition) and their influence on decision-making, which eventually impacts behaviour, requires deep exploration. Also, predominant emotions experienced by a person may have an influence on intentions, hence affecting attitude and, finally, behaviour. Individuals are likely to have the varied influence of their experienced emotions on their decision making, viz. a viz. based upon a purely rational criterion. Since personality traits are relatively stable till adulthood hence, it may be hypothesized that, though the frequency of fluctuations in emotions experienced, degree, intensity and their influence on action tendencies are likely to be diverse amongst teenagers, the same may be relatively stable and with a pattern within a person. These manifestations and their influence have deep roots in the societal and cultural backgrounds.

Expressed emotions are identified, interpreted and reciprocated by others through facial expressions, vocal expressions, body gestures and even changes in facial skin tone and hue. Emotional intelligence includes the ability to express and regulate felt emotions and recognize and reciprocate others' emotions, whereas emotional aperture is the ability to accurately diagnose and feel diverse emotions expressed by a number of individuals across collectives such as groups and organizations. The emotional aperture measure (EAM) is a tool for a customizable assessment of emotional aperture abilities (Sanchez-Burks, 2015). Unlike EI, EA requires an individual to focus on macro details and hence accurately diagnose any minor change in the diverse expressed emotions by members of a collective. On the other hand, extraversion, one of the basic personality traits, influences the intensity of both expressed and vicariously felt emotions. Individuals with high emotional intelligence would be able to regulate their emotions better and hence be conservative in expressing the actual valence and intensity. Further, they would be paying more attention to emotional cues provided by key actors in a collective and focus on micro details as opposed to those with low EI, who are likely to respond and express their true emotions instantly. Hence it is hypothesized that during an unpleasant change event:

H1: The contagion of emotions will be faster amongst the members with lower EI scores than the members with higher EI scores.

H2: Individuals with lower EI scores will be more susceptible to catching negative emotions than positive ones.

Conversely, individuals with higher EI scores will have a higher propensity to catch positive rather than negative emotions.





During a change event or process, people feel insecure and indecisive. As change is a threat to their status quo, initial responses are likely to be negative in case the change does not seem not imminent or urgent. Since people are uncertain about the change and outcomes and adequate information is mostly limited to a few change agents' initial emotional expressions, which can significantly influence people's attitude towards the same. Emotion contagion through facial mimicry and neural pathways leads to emotional convergence among the members of any form of collective such as coalitions, teams, groups and even organizations. This process of emotional contagion is largely unconscious and automatic. Since specific emotions and their intensity induces favourable or unfavourable responses to any event, incident, person etc., conducive emotional convergence is a prerequisite of any change process where emotions are high. Accordingly, it is hypothesized that during the initiation of a change process, the instant emotional responses of different individuals of a collective will vary on time taken for initial emotional response and expression of emotions, valence and intensity: Individuals with high EA pay more attention to macro details as they require to quickly scan all individuals and get an idea of heterogeneity and intensity of emotions amongst the diverse mix of specific emotions. It is likely that people with high EA will be less focused on micro details, specifically in groups. Since individuals with high EA are likely to scan the environment, hence it is likely that their emotional response would be slower, and they will be responding after getting emotional clues from other group members. Further, individuals with rose-tinted bias see a higher proportion of positive emotions amongst the collective than actual, whereas those with pessimistic bias see a higher proportion of negative emotions than the actual. Individuals with high EA shall be accurately able to decipher the heterogeneity of expressed emotions and predominant emotions. However, fewer individuals with high EA will be able to influence the group's emotions less than more individuals with even moderate EAM hence, the group's average EAM would not probably be the correct indicator of the group's propensity to have emotional convergence. In view of these arguments, it can be likely that the Interplay of the average emotional aperture measure and the number of individuals will influence emotional convergence among in-group members. It is hypothesized that:

H3: Groups with higher mean EAM scores will have faster and greater convergence of emotions.

H4: Groups with a high "rose-tinted bias on EAM" score will lead to positive emotional convergence, whereas those with a high "pessimistic bias on EAM" will lead to negative emotional convergence.

## II. MATERIALS AND METHODS

The study involved twenty postgraduate students of the National Institute of Fashion Technology who come from diverse geographical and cultural backgrounds. The experiment was conducted as part of 'Human Resource Management classes, wherein the students were taught about the research process on social and behavioural issues. Emotional intelligence (EI), Emotional Aperture Measure (EAM) and big five personality dimensions (BFI) of the participants were measured using reliable scales and tools. The participants demonstrated the process and purpose of filling out the questionnaires, which could be further used by them for self-evaluation and personal improvement.

The experiment involved inducing unpleasant change events by announcing spot evaluations without any prior notice and choosing the topics for evaluation not yet covered. Besides, the location, methodology and weightage of the assignments were also unilaterally altered to induce anger, uncertainty and helplessness among the subjects deliberately. Since participants were mentally prepared for specific class settings and marks carry high significance for placements,



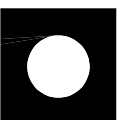
hence changes in the context and unannounced evaluations or unexpected modes of evaluations were likely to invoke positive or negative emotions amongst the individual participants. Once the experiments were over, the participants were briefed about the purpose, process and methodology for the entire experiment and individual concerns raised were adequately addressed. It was also conveyed that the data would solely be used for the research work, and the identity of the participants would be strictly kept confidential.

The reliable indicators of expressed emotions, facial expressions, and vocal tones of the individual participants, as well as of the collective, were deciphered and recorded 'immediately', 'after five minutes' and 'after ten minutes' of the change event. Positive emotions were coded as 2, negative as 0 and neutral as 1. The first instance of change in the valence of the expressed emotion of the participants, after the announcement of the change event, was taken as a 'response time' and the difference of individually expressed emotion from that of the collective emotion was measured as 'displacement'. Correspondingly, the influence of EI, EAM and personality traits on an individual's propensity to converge with the group emotions was analysed using standard statistical tools. The whole process was video recorded for the purpose of analysis with two mobile cameras from different angles and the recorded footage was retrospectively analysed by two coders independently to eliminate any inconsistency in the interpretation of the expressed emotions.

While the use of video to analyse data has been considered an important resource, as it gives researchers the advantage of going back and forth the recording iteratively, using video data also entails the possibility of reflecting, distorting and remediating the social events. Therefore, researchers have to be careful in choosing the camera, its position, process of logging, sampling, coding and transcription in order to reduce, if not completely eliminate, any reinterpretation of the data (Jewitt, 2012). Accordingly, the mobiles were hidden from the participant's view during the entire process and revealed only after the experiments were completed. Besides, the recordings were re-played in the classroom to clarify objections or reservations raised by the participants, if any.

### *Measures*

Personality traits were measured on 44 items big five inventory (BFI) which is a validated and standard instrument (John, 1991). The BFI scales show substantial internal consistency, retest reliability, and clear factor structure, as well as considerable convergent and discriminate validity (Benet-Martinez & John, 1998; John & Srivastava, 1999). Emotional intelligence was measured using a shorter version of the trait emotional intelligence questionnaire (TEiQue - SF), which has been found to be both reliable and valid across many studies and is a well-established standard instrument to measure EI (Petrides K. V., 2009). The 30-item scale consists of two items, each of the 15 facets of the longer 153-item TEIQue and is ideal to be used in research designs with limited experimental time or wherein trait EI is a peripheral variable. This test also gives reliable scores on four dimensions of global trait EI, namely, well-being, self-control, emotionality and sociability.





### III. RESULTS & DISCUSSION

In order to analyse results, statistical methods and tools, including SPSS 21, which is a statistical programme to analyse data and Microsoft Excel, 2007 for tabulation, coding and deriving statistical results for nominal data, were used.

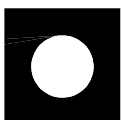
#### Descriptive statistics

Table 1 indicates the variability in the displayed emotions during the group processes when the members encounter an unpleasant change event. Table 2 indicates the descriptive statistics for the variables which were investigated in the study. By analysing kurtosis, it can be derived that the data is normally distributed and hence is suitable for applying parametric tools like correlation and regression. Further, it is interesting to note that the variability of EAM scores and their dimensions are significantly higher than the variability in other trait scores like EI or personality dimensions. Though convergence of emotions is a group construct, most measurements of collective emotions often use an aggregated mean of individual scores on emotional responses and hence reflecting only central tendency; hence it is important that the dispersion and variation in the individual emotions during a group process should also be analysed along with mean (Janice Kelly, 2001).

Figure 1; Deviation, Var NC and Std. Deviation of group emotions

Figure 2: descriptive stats of BFI dimensions, EI traits and EAM measure

Table 3 indicates the correlation between the Emotional aperture measure (EAM), emotional intelligence (EI) and its dimensions, namely self-control, emotionality, sociability and trait EI. The mean response time has been taken as a dependent variable which is being affected by these emotional competencies in a person. The Karl Pearson coefficient ( $r$ ) between EA score and trait EI indicates a positive relationship ( $r = .414$ ;  $p < 0.01$ ) with variation in the strength of the relationship in ascending order from emotionality ( $r = .347$ ), sociability ( $r = .347$ ) and self-control ( $r = .418$ ). The result indicates a negative relationship between the mean response time (MRT) of an individual changing the valence of his emotions during the change process with both the measures, i.e. EAM score ( $r = (.314)$ ) and trait EI score ( $r = (.046)$ ). It shows that the higher the competency of an individual in either EAM or EI lower will be the response time in assessing the group's emotions and consequently expressing his own valence. This may be attributed to the fact that these individuals can better assess others'



emotional cues and accordingly react to the situation in less time with respect to low scorers on these traits. The strong relationship between EI and MRT in comparison to EAM indicates that EI is a strong predictor for strong and fast individual emotional responses in a change event than EAM, whereas individuals with high EAM score are likely to assess the diversity of emotions using macro focus and express their emotions after assessing and interpreting the same.

Correlations			
	EA score	Self Control	Emotional Stability
Pearson Correlation	1	.418	
Sig. (2-tailed)		.066	
Sum of Squares and Cross-products	2929.654	65.445	
Covariance	154.192	3.444	
N	20	20	
Pearson Correlation	.418	1	
Sig. (2-tailed)	.066		
Sum of Squares and Cross-products	65.445	8.356	
Covariance	3.444	.440	
N	20	20	
Pearson Correlation	.347	.252	
Sig. (2-tailed)	.134	.284	
Sum of Squares and Cross-products	33.362	1.293	
Covariance	1.756	.068	
N	20	20	
Pearson Correlation	.395	.035	
Sig. (2-tailed)	.085	.883	

Table 4 indicates the frequency distribution of response time of the participants emotionally responding to the change event (MRT), the average tendency of changing the emotional valence during the change process in group settings, Mean displacement of individual emotion (MDI) and the degree of congruence of the valence of individual's emotions with the predominant group emotion, Mean congruence with group emotion (MCG).



Further, table 5 indicates the analysis of specific EI, EAM and BFI scores of these distributions; the relationship between these personality traits and emotion dimensions with emotional behaviour in a group during the change process was inferred. A significant relationship between EAM and MRT, as identified by the correlation analysis above, is validated. It may be seen that individual displacement of emotions is least with high scorers on EI (MDI = 0.25, EI = 5.03; MDI = -.25, EI = 5.03).

Correlations

	EA score	Self-Control	Emotionality	sociability	Global Trait EI	Mean Response time from 3 events	
EA score	Pearson Correlation	1	.418	.347	.395	.414	-.314
	Sig. (2-tailed)		.066	.134	.085	.070	.177
	Sum of Squares and Cross-products	2929.654	65.445	33.362	32.039	35.417	-63.592
	Covariance	154.192	3.444	1.756	1.686	1.864	-3.347
	N	20	20	20	20	20	20
Self-Control	Pearson Correlation	.418	1	.252	.035	.730**	-.272
	Sig. (2-tailed)	.066		.284	.883	.000	.246
	Sum of Squares and Cross-products	65.445	8.356	1.293	.153	3.338	-2.938
	Covariance	3.444	.440	.068	.008	.176	-.155
	N	20	20	20	20	20	20
Emotionality	Pearson Correlation	.347	.252	1	.054	.544*	-.234
	Sig. (2-tailed)	.134	.284		.821	.013	.321
	Sum of Squares and Cross-products	33.362	1.293	3.158	.144	1.528	-1.555
	Covariance	1.756	.068	.166	.008	.080	-.082
	N	20	20	20	20	20	20

This indicates that individuals with high EI are able to regulate their own emotions and hence are less affected by group emotions. This may also be attributed to the fact that since individuals with high EI focus on micro details and hence are less effective in diagnosing the group's affective tone. The data also indicates that the congruence of individual emotion with group congruence is maximum in the case of high scorers on the EAM measure (EAM = 65.77; MGC = - 0.25). However, congruence is more towards negative valence, which may be because of the high emotion turmoil during the change process. Since negative congruence is not conducive to an effective change process, hence scores of change age during the change process is important. Further, individuals' optimistic bias / rose-tinted biases should further be kept in mind while deciding the mix of the team involved in the change process. It is also evident from the data that MRT, MI and MGC are influenced by personality dimensions,



as there is a high degree of variability between these measures.

**Table 1: Frequency distribution according to MRT, MDI & MCG**

Frequency Distribution	Mean Response time from 3 events (MRT)	Mean displacement of individual emotion (MDI)	Mean congruence with group emotion (MCG)
(-1.5) - (-1)	0	1	1
(-1) - (-0.5)	0	6	2
(-0.5) - 0	0	7	3
0 - 0.5	5	4	7
0.5 - 1	5	2	5
1 - 1.5	6	0	2
1.5 - 2	2	0	0
2 - 2.5	2	0	0

Median value	EI			EAM			Openness			Extraversion			Agreeableness			Conscientiousness			Neuroticism		
	MR T	M DI	MC G	MR T	MD I	MC G	MR T	M DI	MC G	MR T	M DI	MC G	MR T	M DI	MC G	MR T	M DI	MC G	MR T	M DI	MC G
-1.25	0	5.1	4.8	0	55.88	61.76	0	3.3	3.8	0	3.75	4.11	0	3.67	2.79	0	3.44	2.98	0	2.12	1.77
-0.75	0	4.77	5.17	0	36.2	51.86	0	3.48	2.87	0	3.65	3.16	0	3.8	3.38	0	3.75	3.23	0	3.99	1.99
-0.25	0	5.03	5.1	0	34.19	65.77	0	4.1	3.37	0	4.09	3.27	0	4.07	3.37	0	4.01	3.13	0	3.65	2.12
0.25	4.98	5.26	5.03	54.74	63.05	37.83	3.38	4.04	3.32	3.74	4.07	2.58	3.17	4.29	4.29	2.65	3.07	4.17	1.96	2.03	3.69
0.75	5.21	5.38	5.2	46.83	70.53	40.1	3.05	3.02	3.5	3.34	3.21	3.88	2.8	3.49	3.77	2.63	3.28	3.71	1.68	2.48	3.05
1.25	5.07	0	4.55	33.71	0	35.88	3.81	0	3.68	3.75	0	3.36	4.02	0	3.4	3.79	0	3.33	3.18	0	2.05
1.75	4.58	0	0	43.62	0	0	3.27	0	0	3.38	0	0	3.55	0	0	3.3	0	0	2.4	0	0
2.25	5.12	0	0	63.24	0	0	3.58	0	0	3.66	0	0	3.05	0	0	3.09	0	0	1.79	0	0

Karl Pearson coefficient (r) between EA score and trait EI indicates a positive relationship (r = .414; p < 0.01) with variation in the strength of the relationship in ascending order from emotionality (r = .347), sociability (r = .347) and self-control (r = .418). The result indicates a negative relationship between the mean response time (MRT) of individual changing the valence of his emotions during the change process with both the measures, i.e.



EAM score ( $r = -.314$ ) and trait EI score ( $r = (.046)$ ). It shows that the higher the competency of an individual in either EAM or EI lower will be the response time in assessing the group's emotions and consequently expressing his or her valence. This may be attributed to the fact that these individuals can better assess others' emotional cues and accordingly react to the situation in less time with respect to low scorers on these traits. The stronger relationship between EI and MRT in comparison to EAM indicates that EI is a strong predictor for strong and fast individual emotional responses in a change event than EAM, whereas individuals with high EAM score are likely to assess the diversity of emotions using a macro focus and express their emotions after assessing and interpreting the same.

Table 6 indicates the correlation of different emotion and personality traits like emotional intelligence (EI), Emotional aperture measure (EAM), big five personality traits as independent variables and Mean response time (MRT), Mean displacement of individual emotion (MDI), and mean group congruence (MCG) as dependent variables. Significant relationships are indicated between EAM with mean response time ( $r = -0.35$ ;  $p < 0.01$ ) and mean congruence with group emotion. This validates the result from Analysis 1 that EAM is adversely related to MRT. Further, a strong positive relationship exists between EAM and group emotional convergence ( $r = 0.83$ ;  $p < 0.01$ ).

	Mean Response time from 3 events (MRT)	Mean displacement of individual emotion (MDI)	Mean congruence with group emotion (MCG)
EI	-0.03	0.71	-0.26
EAM	-0.35	-0.23	0.83
Openness	-0.42	-0.93	-0.79
Extraversion	-0.10	-0.89	-0.77
Agreeableness	0.17	-0.77	-0.92
Conscientiousness	0.51	-0.42	-0.87
Neuroticism	0.10	-0.22	0.44

#### IV. GENERAL DISCUSSION

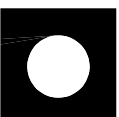
The results indicated that emotional intelligence is a different trait than the emotional aperture measure. Both traits are important to manage the change process effectively. Since initial feelings foster attitude towards a change event or a change process, hence it is desirable that the collective's groups being affected by the change process should be managed by planting individuals with high EAM, specifically those with high rose-tinted bias. This will increase the chances of the positive valence of the group emotions and hence will be conducive to the change process.



Future researches require testing these findings in the field setting and exploring other relationships of EI and EAM during the change process so that leaders can influence the emotional responses and hence increase the chances of effective change.

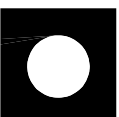
## REFERENCES

- [1] Abinash Panda, R. K. (2013). Using Mix methods approach in cross cultural studies: lessons of research experience. *Psychological Studies*, 58 (3), 292-304.
- [2] Alan R. Muller, M. D. (2014). A theory of collective empathy in corporate philanthropy decisions. *Academy of Management Review*, 39 (1), 1-21.
- [3] Anuja Mathur, K. S. (1983). Generosity and Reciprocity in a rural Indian Setting. *The Journal of Social Psychology*, 147-148.
- [4] Axelord, P. (1990). Cultural and historical factors in the population Decline of the Parsis in India. *Population studies*, 44, 401-419.
- [5] Bardhan, P. (1987). *Economic Geography of Sex Disparity in Child survival in India*. University of California. Berkeley.
- [6] Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on Group Behaviour. *Administrative Science Quarterly*, 47, pp. 644-675.
- [7] C. Gopalan. (n.d.). *Child Care in India - Emerging Challenges*. 2 -3.
- [8] Catherine S. Daus, N. M. (2005). The Case for the Ability Based Model of Emotional Intelligence. *Journal of Organizational Behavior*, 26 (4), 453-466.
- [9] Cochran, M. Q. (2002). *A Guide to Using Qualitative Research Methodology*. *medecins sans frontiers*.
- [10] Conner, M., & Sparks, P. (1996). Predicting health behaviour: Research and practice with social cognition models. In M. Conner, & P. Norman, *The theory of planned behaviour and health behaviours* (pp. 121-162). Maidenhead, BRK, England: Open University Press.
- [11] Damasio, A. (2005). *Descartes' Error*, Penguin Books, UK.
- [12] Ferraro, G. P. (2001). *The cultural dimension of International Business* (4th ed.). (L. Pearson, Ed.) New Jersey, New Jersey 07458, USA: Nancy Roberts.
- [13] Ferraro, G. P. *The culture dimension of International Business* (Fourth ed.). New Jersey 07458, The University of North Carolina at Charlotte, USA: Prentice Hall, Pearson Education, Inc. New Jersey.

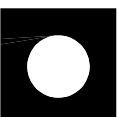




- [13] Fong, C. T. (2006). The effects of emotional ambivalence on Creativity. *Academy of Management Journal*, 49 (5), 1016-1030.
- [14] Forgas, L. &. (1995, 2000). AIM.
- [15] Fred Luthans, C. M. (2007). Emerging positive Organizational behaviour. *Journal of management*, 33 (3), 321-349.
- [16] Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden & Build theory of positive emotions. *American Psychologist* , 218 - 226.
- [17] Fredrickson, B. (2002). Poitive emotions. In S. C.R. Synder, *Handbook of Positive Psychology* (pp. 120-134). New York, U.S.: Oxford University Press.
- [18] Freedman, J. (2010). The Business Case for Emotional Intelligence. White Paper .
- [19] Goleman, D. (1998). Emotional Intelligence, why it can matter more than IQ.
- [20] Gulhati, K. (1990, Feburary 17-24). Attitudes toward Women Managers: Comparison of Attitudes of Male and Female Managers in India. *Economic & Political weekly*, 25 (7-8), pp. M-41-M48.
- [21] Hammel, E. (1990). A theory of culture for Demography. *Population and development review*, vol. 16 (no. 3), 455-485.
- [22] Huebner, B. (n.d.). Genuinely collective emotions. Retrieved september 16, 2015
- [23] Huy, J. S. (2007, october 11). Faculty and research working paper. emotional aperture and statergic change: The accurate recognition of collective emotions . France: INSEAD Fontainebleau France.
- [24] Izard. Emotion Theory and research: Highlights, Unanswered questions and emerging issues.
- Izard, C. E. (n.d.). Emotion Theory and research: Highlights, Unanswered questions and emerging issues.
- [25] J, P. I. (1990, August). Career Paths of women in India. (I. Ahemadabad, Compiler) Ahemadabad, Gujrat, India: Working paper series.
- [26] J.M. Kanov, S. M. (2004). Compassion in organizational life. *American Behavioral Scientist*, 47, 808-827.
- [27] Jaeger, A. M. (1986). Organization Development and National Culture: Where's the Fit? *Academy of Management Review*, II (No. 1), 178-190.
- [28] Janak, P. (1981). Ingratiation tactics in India. *The Journal of Social Psychology*, 113, 147-148.
- [29] K.V. Petrides\*, A. F. (1999). On the dimensional structure of emotional intelligence. *Personality and Individual Differences* .
- [30] Kaval, G. (1990). Attitudes toward Women Managers: Comparison of Attitudes of Male and Female Managers inIndia. *Economic and Political Weekly*, Vol. 25, No. 7/8 (Feb. 17-24, 1990), M41-M48.



- [31] Kedia, B., & Bhagat, R. (1988). Cultural Constraints on Transfer of Technology Across Nations: Implications for Research in International and Comparative Management. *Academy of Management Review*, 13 (4), 559-571.
- [32] L.P. wooten, P. C. (2004). Generating dynamic capabilities through a humanistic work ideology. *American Behavioral Scientist* , 848-866.
- [33] L'Armand, K. (1984). Preferences in patterns of eye contact in India. *The Journal of Social Psychology*, 122, 137-138.
- [34] Luthans F., Y. C. (2004). Human, social and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics* , 143-160.
- [35] Myers, M. D. (2013). Analysing qualitative data: An overview. In M. D. Myers, *Qualitative research in Business & Management* (2nd ed., pp. 166-172). sage publication.
- [36] Pandey, J. (1981). Ingratiation tactics in India. *The journal of social psychology*, 113, 147-148.
- [3] Parikh, I. J. (1990, August). Career path of women in management in India. India: IIM Ahmedabad.
- [37] Ramachandran, P. J. (2011). Emotional Intelligence, Emotional Labour and Organisational Citizenship Behaviour in service environments.
- (1980). report of the years, 1974- 1979. Hyderabad: National Institute of nutrition.
- [38] Ryback David, A. L. (1980). Child - rearing practices reported by students in six cultures. *The Journal of Social Psychology* (110), 153-162.
- [39] S.G.Barsade, D. G. (2012). Group effect: Its influence on individual and group outcomes. *Current directions in Psychological Science*, 21, 119-123.
- [40] Sadrd, A. M. (2013). The Correlation between Emotional intelligence and Knowledge Transformation . *International Journal of Management Academy* .
- [41] Sanchez-Burks, J. B. (2015, March). Collective Affect Recognition via the EAM (Emotional Aperture Measure). *Cognition & Emotion* , 1-17.
- [42] Seymour, S. (1989). Child rearing in India - A case study in change and modernization. 41.
- [43] Sheila, T. (1989, July 9). Indian Education; Ancient and modern caught in crosscurrent of change. *General interest periodicals* . Ottawa, Canada: Infomart.
- [44] Shetty, S. L. (1990, March 17). Saving behaviour in India in the 1980's some lessons. *Economic & Political weekly*, 25 (11), pp. 555-560.
- [45] Singh, J. P. (1990). Managerial culture and work related Values in India. *Organization Studies* (11/1), 075-101.
- [46] Spaeth, A. (1987, August 19). Harsh draught in Decades Devastate India's growth, slow economic growth. *Business and economics - banking & finance* . New York, New York, USA: Dow Jones & Company Inc.



[47] Weisman, S. R. (1987, April 29). India's boom leaves one state in dark Ages. Economic conditions & trends , social conditions & trends . East Coast, New York, USA: New York times company.

[48] Wolfgang Wagner, E. K. (1990). male dominance, role segregation and spouses' interdependence in conflict. Journal of cross cultural Psychology, 21 (1), 48-70.

[49] Yasmin Tibi-Elhanany, M. a.-T. (2011). Social Cognition in Social Anxiety: First Evidence for Increased Empathic Abilities. Isr J Psychiatry Relat Sci, 48 (2).

