1976

Amusement, hostility and surprising judgements as functions of ethnic group identifications, anticonformity and ego-involvement.

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AMUSEMENT, HOSTILITY AND SURPRISING JUDGEMENTS AS FUNCTIONS OF ETHNIC GROUP IDENTIFICATIONS, ANTICONFORMITY AND EGO-INVOLVEMENT

by

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M.A. University of Windsor, 1974

A Thesis
Submitted to the Faculty of Graduate Studies
through the Department of Psychology
in Partial Fulfillment of the
Requirements for the Degree
of Master of Arts at the
University of Windsor

Windsor, Ontario, Canada

1976

ACKNOWLEDGEMENTS

I wish to express my deepest appreciation to Dr. Lawrence La Fave, Chairman of my Thesis Committee, from whom came the inspiration for this research, constant support and empathetic understanding. He gave me deeper insight into the area of humour research with subtle distinctions (such as between attitude and belief, and anticonformity and nonconformity). I also wish to extend my thanks to the members of my thesis committee, Dr. John La Gaipa, Dr. Subhas Ramcharan and Dr. Sally Snyder, for their assistance, guidance and helpful suggestions throughout the course of this research.

I am especially indebted to Ann Marie Guilmette and Sarah Yee Wah Tsang for their help in preparing the stimulus materials and sending the material to India. In particular, I benefited from our frequent discussions and their critical insights. I also wish to thank Kuzma Bacic, Robert Manuel, J. Blaine Pont, Christine Puida and Gregory Renaud, who helped construct the items. Their background and knowledge of Canadian culture was indeed an asset.

I will forever be indebted to my husband Khetar Issar, who perilously administered the material to subjects in India, and has given me the courage to continue my studies.

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CHAPTER I

INTRODUCTION

For centuries, philosophers had been preoccupied with the investigation of the nature of humour. Psychologists were curious about this unique mental phenomenon expressing itself in laughter, smile, startle response, etc. Sociologists visualized humour as a social process affecting the social system. These concerns point to the social-psychological nature of the phenomenon of humour and importance of the topic for a social psychologist. "Homer...was the first to outline for us the general forms of Comedy by producing not a dramatic invective, but a dramatic picture of the Ridiculous;..." (Aristotle, 1955, p. 329). Aristotle (op. cit., p. 330) defined the ridiculous "as a mistake or deformity not productive of pain or harm to others; the mask, for instance, that excited laughter, is something ugly and distorted without pain." Aristotle, also, pointed out that the "early stages of Comedy passed unnoticed, because it was not as yet taken up in a serious way. It was only at a late point in its progress that a chorus of comedians was officially granted by the archon; they used to be mere volunteers." (Aristotle, p. 330). The

same thing happened with the phenomenon of humour. In spite of the educated mans awareness of the topic over the centuries, no systematic research within a theoretical framework was performed.

It is only during the last decade or two that investigation of humour has been taken up seriously and the importance of humour research has been recognized. Experimental and field research techniques of the social sciences have been applied by the social psychologists to study the conditions under which the individuals perceive and respond to humour, and to determine the functions of humour. The present study concerns itself with the former, namely, the factors influencing an individual's perception and response to humour.

Humour is a complex human phenomenon. There are many theories of humour. There is the cognitive perceptual model in which the sudden surprising shift from the expected outcome is seen as an important element in the structure of jokes. Such an incongruity humour theory argues that what is ridiculous or incongruous provokes laughter. Such incongruity theory focusses on either the structural aspects of the humourous stimuli as objective incongruity or subjective incongruity as perceived by the individual. The latter (i.e., subjective incongruity) is the central notion in this thesis. There

are superiority humour theories (e.g., (Wolff, Smith, & Murray, 1934) which are social psychological (rather than individualistically psychological) since "they predicted that 'jokes' in which a disliked ethnic group was the butt would be funnier than when the subject's own ethnic group was disparaged" (La Fave, et al., 1974, p. 184). Consistent with the superiority theory is the 'mastery notion'. White (1959) formulated a theoretical motivational model and postulated that striving for competence, mastery, or "effectance" is a primary drive. Shultz (1976) has tried to relate 'pleasure in mastery' to a biphasic incongruity and resolution model.

According to a drive reduction model, humour is pleasurable because it satisfies and thereby reduces the primary drives of sex and aggression. There is a sudden relief from tension or a reduction in anxiety. Kant (1790), Berlyne (1960) and Tomkins (1962) did research based on this model.

In his psychoanalytic model Freud (1928) postulated that humour gives pleasure by permitting momentary gratification of some hidden and forbidden wish, while the anxiety that normally causes the inhibition of the wish is reduced. A joke or cartoon releases inner tension by making light of the forbidden impulse, treating it as trivial or universal.

The psychologists engaged in humour research have highlighted one or the other variable, namely, incongruity, mastery, feeling superior, a neuro-physiological explanation of tension reduction. Some regard suddenness an essential element, while others postulate biphasic models where a second phase is considered essential for the processing of a humourous response.

The concept "incongruity" is not new; incongruity humour theory can be traced back to the philosophical writings of earlier centuries. As mentioned earlier incongruity is present in the notion of 'Ridiculous' in Aristotle. In the 17th century Descartes postulated that mental and physiological phenomena may be explained by simple mechanical processes. "Laughter [by which he meant humour] consists in the fact that the blood, which proceeds from the right orifice in the heart by the arterial vein, inflating the lungs suddenly and repeatedly, causes the air which they contain to be constrained to pass out from them with an impetus by the wind-pipe; where it forms an articulate and explosive utterance;..." (Descartes, 1970, p. 385). Still more relevant to incongruity theory is Descartes description of "wonder." When the first encounter with some object surprises us, and we judge it to be new or very different from what we formerly knew, or from what we supposed that it ought

to be, that causes us to wonder and be surprised;..." (Descartes, op. cit. p. 358). Descartes refers to a 'surprise' response by an individual when something new or discrepant is presented. A distinction between belief and attitude seems to be implicit in "what we formerly knew" or "what we supposed that it ought to be." Descartes further states that one is "in nowise moved" if the presented object has nothing in it that surprises.

In the 18th century, Gerard (1759) described the objects of humour as uncommon mixtures of relations and the contrariety in things. Beattie (1776) held the view that laughter emanated as a result of two or more inconsistent or unsuitable circumstances put together in a united complex. This view seems analogous to Gestalt reversible figure-ground shifts. Kant (1790), the father of Gestalt psychology, described laughter (i.e., humour) as an affection arising from the sudden transformation of a strained expectation into nothing." Reduction of tension is implied there but the key note seems to be "transformation," and "expectation into nothing". It is subjective experience rather than objective incongruity. A theoretical base for incongruity is provided by Gestalt psychology that man imposes structure on an ambiguous or unstructured situation so that sense or

meaningfulness is perceived in the nonsensical or incongruous and under certain circumstances results in a pleasant, amusing mental experience.

Willmann (1940) states "humor always results from the union of two ideas which involve some sort of contradiction or incongruity...."

Spencer (1860) makes a qualification regarding amusement by incongruity that not all incongruities cause laughter but only "a descending incongruity" from the sublime to the ridiculous. He states that laughter results when "the conscious is unawares transferred from great things to small...."

Bergson (1911) argues that "definitions which tend to make comic into an abstract relation between ideas: "an intellectual contrast," "a patent absurdity," etc., definitions which, even were they really suitable to every form of the comic, would not in the least explain why the comic makes us laugh." Laughter is a phenomenon which is peculiar to human beings and always implies a kind of "secret freemasonary," or "complicity," with other laughers, "real or imaginary." So, according to Bergson, "To understand laughter, we must put it back into its natural environment...."

Mull (1949) studied humour in music. The subjects indicated which passages in two pieces of music they experienced as humourous. One important characteristic

feature possessed in common by most of the passages was contrast, of great variety: of timbre, intensity, pitch, rhythm, tempo -- above or in combinations which make possible the character of melody, incongruity of medium, contrasts in mood, style and complexity. It was found that sources of humour were both intrinsic and extrinsic to the music. Contrast (including incongruity) is the most frequent intrinsic force. The view is suggested that the basis of humour is a quick volte-face in conjunction with a non-practical attitude.

Culture determines to a great extent what is and what is not amusing. Greig (1923) notes that "it is only people with the same social heritage who laugh easily at the same kind of jokes."

So incongruity becomes more specifically social incongruity. Burma (1946) was apparently the first to deal more systematically with the social functions of humour in race relations. Racial humour is primarily created to attain gratification at the expense of the other racial group; its purpose is "to cause one's adversary to appear ludicrous in his own eyes... [or] in your eyes."

Middleton (1959) pursued the hypothesis that definitions and functions of humour vary with the cultural context. His analysis explores subcultural variations

in humour by comparing "the appeal of racial jokes, both anti-Negro and anti-white, to matched groups of Negroes and whites." Goldman (1960) distinguished perceived subjective incongruity from objective incongruity by emphasizing that humour is situationally relative. Goldman suggested that an explanation of Negro humour requires an understanding of the pattern of race relations at the time in which humour occurred.

Arnez and Anthony (1968) postulated that humourousness was indeed a reflection of one's cultural experience. Their review of contemporary Negro humour led them to conclude that the character of Negro humour is a reflection of Negro experience. Radcliffe-Brown (1940) defined the joking relationship as "a relation between two persons in which one is by custom permitted, and some instances required, to tease or make fun of the other, who in turn is required to take no offence...." Radcliffe-Brown (1949) indicated that formulation of the concept 'joking relationship' began in 1908 when he was searching for an explanation of customs of avoidance between kin members in the Andaman Islands. The joking relationship came as a spin-off from his interpretation of avoidance relations as relationships of friendship. Thus joking is one social mechanism for resolving hostility emerging from structural relationships among kin members

and maintaining a stable system of social behaviour.

Zijderveld (1968) concentrates on the social functions of humour and notes that there are certain social roles which are socially acceptable or normative. This structural framework can be observed in the phenomenon of joking, since institutionalized joking relationships are part of almost every social structure.

A review of the above research literature on humour shows the cultural relativity of humour and highlights the fact that the acculturation process through which a person has been socialized influences his humour judgments. As pointed by La Fave, et al., (1976) jokes are not inherently funny and do not have points which transcend cultural boundaries. Margaret Mead (1950) found women to be more aggressive than men among members of the Tchambuli tribe. Now a joke whose point or incongruity is based on woman dominating man would probably not be found funny in the Tchambuli society, whereas it would be funny in the North American society where women are not supposed or expected to dominate men. So jokes as humourous stimuli do not exist in an absolute sense. In addition, sometimes nonhumourous stimuli are amusing. Nerhardt (1970) used such nonhumourous stimuli as "weights" and they generated laughter (and, apparently, amusement). Rothbart (1973) notes "the studies of

infant laughter force us to reconsider the view that laughter [humour] always occurs in response to a stimulus we would independently define as pleasurable" (p. 248).

Nerhardt (op. cit.) focussed on incongruity or violations of expectancy as central to the humour experience. His subjects received weights within a certain limited range and then a final weight quite discrepant from the rest of the series. The results indicated that smiling and laughing in the subjects increased as the degree of discrepancy increased between the initial series and the deviant weight. He showed that incongruity was a necessary condition for eliciting the inclination to laugh (and, apparently the experience of amusement). However, La Fave et al., (1976) points out that the experiment provides evidence for the cultural relativity of incongruity -- for the perception of incongruity in the discrepancy of weights would depend on one's background of weight lifting and other past experiences which are relative to one's cultural background.

Nerhardt's (op. cit.) experiment was replicated by Deckers and Kizer (1974, and 1975). Gerber and Routh's (1975) experiment was also basically a refinement of Nerhardt's experiment. Degree of humourous response

varied with the discrepancy of the shift weight and its absolute magnitude. The greater the discrepancy between a weight given a subject and that expected the more intense the humour response. In addition, there was an effect of stimulus intensity such that the discrepancy effect was greater when the weight was heavier than expected rather than lighter than expected.

Gutman and Priest (1969) experimentally manipulated the perceived character of a verbal aggressor and a victim in a series of humourous stories. When the aggressor's overall behaviour was perceived as socially acceptable, the hostile punch line was perceived as both more justifiable and more humourous than when it was perceived as socially unacceptable. For the victim, however, the opposite results were found. When the victim behaved in a socially unacceptable manner, the punch line was perceived as both more justifiable and funnier than when he behaved in a socially acceptable manner.

Berlyne (1960) formulated an arousal model which he applied to activities like curiosity, play, and exploration, as well as humour. He proposes that humour springs from an "arousal jag" stemming from an experience of threat, discomfort, uncertainty, unfamiliarity, or surprise followed by "some factor that signifies safety, readjustment, clarification, or release." For Berlyne,

the arousal in humour is not a psychological state but a neurophysiological event, and he refers to the "response of the nervous system in preparation for serious events demanding action." Berlyne believes that violation of expectancy results in an increase in arousal, but that the understanding of the incongruity decreases the arousal resulting in the generation of amusement. He suggests two stages -- arousal (tension or anxiety) and then decrease in arousal and attainment of homeostatic state.

Tomkins (1962) follows Berlyne (op. cit.) by proposing a reduction of tension, of "neural firing". "Thus, sudden relief from such negative stimulation as pain, or fear or distress or aggression will produce the smile of joy...Further, the sudden reduction of positive effect, such as excitement, also activates the smile of joy, in this case usually the smile of recognition or familiarity." So Tomkins introduces the cognitive process of matching unfamiliar with familiar stimuli. He considers "suddenness" as relief as critical in the activation of the smile response.

Then there are humour theorists with a cognitive approach who think incongruity is essential to humour experience but not sufficient. A second phase is required when the incongruity is explained or resolved

and amusement is generated. They may differ in the way they treat incongruity but they agree in that they recognize the importance of another structural feature of a joke besides incongruity, namely resolution.

Shultz (1972) specified incongruity and resolution as two distinct structural dimensions of the joke. Incongruity is an essential aspect of a joke; the subject must be able to notice the incongruity. But the subject must also be able to explain or resolve the incongruity for the appreciation of humour. Order or processing is -- incongruity→resolution, so that resolution never precedes incongruity. He designed two experiments to assess humour-inducing importance of incongruity and resolution and found that a child appreciates a cartoon to the extent that he finds and resolves an incongruity. He employed two age groups to assess developmental differences and found them to operate with the same cognitive structures; however they differed in the amount of stored information which they could use to identify the criterial incongruity and the criterial resolution. If the subject was unable to discover the criterial incongruity (i.e., the one intended by the cartoonist), he typically invented a noncriterial incongruity and tried to resolve that. If he was unable to provide the criterial resolution, he typically employed a noncriterial

resolution.

Shultz (1976) attempts to determine whether 'pleasure in mastery' bears any fundamental structural similarity to incongruity and resolution. Shultz and Zigler (1970) have suggested that the pleasure in mastery mechanism has considerable adaptive significance for the infant's cognitive growth and it seems to be an important mediator of smiling throughout later life. Harter, Shultz and Blum (1971) and Kagan (1971) have demonstrated that the successful solution of problems is accompanied by smiling in older children. Shultz (1976) points out that pleasure in mastery is involved in the appreciation of humourous materials containing resolvable incongruities.

Sul's (1972) two-stage model involves two major operations in the comprehension and appreciation of verbal jokes. During the first operation, the reader develops a narrative schema which leads him to some expectancy of the story's outcome. When the reader is surprised by the unexpected end of the joke, the second operation is the search for some cognitive rule which will explain or resolve the incongruity involved.

McGhee (1972) also seems to emphasize the biphasic structural properties of humour. He found two-way interaction of organismic variables and stimulus variables 'while level of cognitive mastery over stimulus elements

plays a role in determining the perception of some incongruous depiction of those elements as humourous, other external cues may lead a child to see humour in a situation apart from his cognitive level." McGhee also suggested that a child's general mood or frame of mind may also affect his level of cognitive mastery on perceiving humour in incongruity. The child need "fantasy assimilate" rather than "reality assimilate" if he is to be amused by the violation of expectancy in the environment. As Piaget (1951) stated "if adapted activity and thought constitute an equilibrium between assimilation and accomodation play begins as soon as there is predominance of assimilation...."

McGhee (1974) suggests the same prerequisite must be met in the case of aggressive humour. If the available cues suggest to the subject that no hostile intent accompanied the potentially humourous comment or activity in question, he can freely fantasy assimilate the event and respond to the humour identified. He also pointed out the level of moral development achieved by the child significantly influences his appreciation of certain types of humour.

Mannell and La Fave (in press) have suggested that an adequate conceptualization of the way an observer experiences a so-called humourous situation or communic-

ation ("joke") needs not only be based on whether he believes this communication "real" or "fantasy" but also on whether the observer adopts a "playful" or "serious" attitude (judgmental set) in regarding the intention of the communication.

Rothbart (1973) recognizes the presence of discrepancy is necessary for humour experience but the discrepancy must be perceived as nonthreatening in order to be amusing. She proposes that "laughter (i.e., amusement) occurs when a person has experienced heightened arousal but at the same time (or soon after arousal) evaluates the stimulus as safe or inconsequential." She notes that situational and individual variables need specification for "laughter or fear might be expected to be evoked by the same or similar stimuli depending upon the state of the child and the context in which the stimuli are presented." Level of cognitive and emotive development of the child determine the humourous response.

Mutuma (1976) studied ethnic humour, joke, and strange judgments as functions of multidimensional social normative incongruity. He used picture-story items as stimulus material and tested 88 subjects drawn from two populations -- Caucasian North Americans and Black Africans. He found the subject more often judged a

picture-story amusing when it anticonformed to at least three value social norms of the culture preferred of the two cultures than when the picture-story nonanticonformed to all these value social norms of the subject. The same results were found when joke, or strange was substituted for amusing. But why were at least three dimensions of incongruity needed when Nerhardt (op. cit.) and Deckers and Kizer (op. cit.) needed only one? Apparently because they were only violating a nonthreatening belief social norm whereas Mutuma's (op. cit.) experiment involved violation of ego-involving value (i.e., attitude) social norms. Violations of three value social norms of the same subject should often prove so ridiculous to him that he cannot take the communication seriously and thus playfully find the story an amusing joke rather than a real threat.

Statement of Problem

A survey of the humour literature shows emphasis on a relationship between culture and humour. Yet not many transnational humour studies have been performed under carefully controlled experimental conditions. Mutuma's (1976) experiment on social-normative incongruity provides a sense of theoretical, methodological and empirical direction for efforts to study the cul-

tural relativity of incongruity humour transnationally. The goal of the present study is to test the differential humour judgments of different ethnic groups with different cultural preferences.

This thesis tests the theory that culturally relative perceived social-normative incongruity is amusing if the perceived (epistemic) incongruity is non-ego-involving (in the sense of nonthreatening). However, if the social-normative incongruity anticonforms to the ethnic group norm of the subjects and they perceive the violations to be threatening, they will not be amused.

The variable of ego-involvement has been referred to from time to time in the research literature but apparently has not been manipulated as an independent variable with respect to social-normative incongruity humour theory.

Rothbart (1973), for example, draws attention to the fact that the discrepancy must be perceived as non-threatening in order to be amusing.

The theory employed in the present paper is based on La Fave's approach (La Fave et al., 1976; La Fave, personal communication).

Amusement is a mental experience (i.e., an organismic variable or 0) in a Stimulus-Organism-Response

model -- unlike laughter, which is a response (R).

The construct social norm is mathematically defined as the intersection of the individual (i.e., psychological) norms of all the members of the society in question. Behaviour by any individual which falls within that intersection is thereby defined as conformity.

In the present experiment, however, the social norms represent the dominant culture of an entire nation. The above definition of conformity is therefore too impractical or narrow for present purpose as it is too difficult (if not impossible) to find any social norms which all members of the society of that nation which embrace the dominant culture subscribe to. Therefore, the terms anticonformity and nonanticonformity are more useful for present purpose.

Anticonformity to a given social norm is defined mathematically as any behaviour in the complementary class of the union of the individual norms whose intersection make up the social norm in question. Nonanticonformity would therefore be any behaviour in the union of all the individual norms in question. The construct behaviour is defined more abstractly than a response such that the most concrete behaviour would be a class of responses. A response is conceived of here as a physical event involving movement by the subject.

An example of a one-dimensional social norm would involve speed. Consider a three-person society in which the first person feels one ought to drive from 50 to 80 miles per hour on the highway in question; the second person subscribes to a 55 to 70 driving speed; and the third to 60 to 85 (where all three sets in this example are defined as closed intervals). Then the social norm for driving speed for this particular three-person society on this highway is the infinite set of real numbers representing the closed interval from 60 to 70 miles per hour.

In the above example any driving behaviour within the closed interval from 60 to 70 miles per hour represents conformity to this social norm. Any driving behaviour outside that range (i.e., less than 60 or greater than 70) indicates nonconformity. Driving behaviour either less than 50 or more than 85 indicates anticonformity. Finally, driving behaviour in the closed interval from 50 to 85 represents nonanticonformity. A social norm then is to an expectancy which is shared by all the members of that society. Incongruity has typically been defined as a violation of expectancies. But the word expectancy is, as employed in the social-psychological literature, ambiguous. Sometimes expectancy refers to an attitude (or value) and at other times to a belief.

A belief differs from an attitude or value in an essential way. Any belief is potentially capable of being mistaken; an attitude or value can never be mistaken.

Since there exist two basic meanings of expectancy, so there are two types of social norms--value and belief social norms. For a belief norm to exist each and every member of the society in question must judge that the subjective probability of the event under consideration occurring is greater than 50%; i.e., behaviour which falls within that predicted range represents conformity to the belief norm of that society. Behaviour which falls outside that range on the same dimension represents nonconformity to that belief norm for that culture. Nonconformity behaviour which is so far outside the expected range that each and every member of that society judges the subjective probability of that behaviour to be less than 50% represents anticonformity to that belief norm for that society.

Beliefs and attitudes need further elaboration with regard to their nature or components. An attitude has both an emotive and a cognitive component. A belief has a cognitive component only but that cognitive component is more complex than the cognitive component of an attitude associated with that belief. When the subject perceives (epistemic) anticonformity to his attitude social

norm, he is more likely to become negatively ego-involved (i.e., emotionally involved) and is usually more threatened than when the anticonformity is to his belief social norm. When there is anticonformity to a belief norm, the subject is usually nonego-involved (i.e., not emotionally involved) and thus is not threatened.

However, it is not argued here that attitudes are always ego-involving and beliefs are always non-ego-involving. But the nature of attitudes is such that they are usually more ego-involving than are beliefs. It is no joking matter when there is a violation of expectancies with regard to one's value system. Sherif and Sherif (1969) point out that if a human is not able to maintain the consistency of his cherished ties, commitments, values, and identifications, his very experience of personal stability is disrupted. That is why Mutuma (1976) tested anticonformity to attitude norms using at least three value violations so that the subjects could conceivably transform from a reality to fantasy mode --thus becoming amused, rather than threatened, by such violations. Nerhardt (1970) was testing violations of belief norms from an expected range in the psychophysical task of weight lifting and thus needed only one dimension. Deckers and Kizer (1974, 1975) who replicated Nerhardt (op. cit.) also needed only unidimensional social norms

as these were violations of belief norms. The only relevant difference here is that they focussed on a central tendency measure.

In the present experiment the independent variables are population (ethnic group), permutation, and ego-involvement (ego-involving attitude norms versus non-ego-involving belief social norms). As ego-involvement is being studied, so only unidimensional items need be used. The three dependent measures are amusement, hostility, and surprising judgements.

All hypotheses involve three-way interactions. These three-way interactions (population x permutation x ego-involvement) hypotheses state that:

Hypothesis 1

The subject will more often judge an item amusing when it anticonforms to an unidimensional belief social norm of the culture preferred of the two cultures than when either the item anticonforms to an unidimensional attitude social norm or nonanticonforms to either an unidimensional attitude or belief social norm. (This hypothesis holds only under the assumption that the attitude social norms chosen are ego-involving to the relevant ethnic groups, and belief social norms are not ego-involving to that group.)

Hypothesis 11

The subject will more often judge an item hostile when it anticonforms to an unidimensional attitude social norm of the culture preferred of the two cultures than when either it anticonforms to only an unidimensional belief social norm or nonanticonforms to either an unidimensional attitude or unidimensional belief social norm. (The only basic differences between Hypothesis 1 and 11 is that Hypothesis 11 substitutes hostile for amusing and anticonformity to attitude for anticonformity to belief.)

Hypothesis 111

The subject will more often judge an item surprising when it anticonforms to an unidimensional belief social norm than when it nonanticonforms to either an unidimensional attitude or an unidimensional belief social norm.

CHAPTER II

METHOD

Subjects

The 62 subjects were drawn from three populations. One group of 20 subjects consists of Caucasian Canadians believed to be ignorant of East Indian culture and who prefer Caucasian Canadian culture. The other two populations both consist of East Indians living in India believed to prefer Indian culture. One of these two Indian populations (Indian English) took the experiment in English (19 subjects), and the other (Indian Hindi) took it in Hindi.

In order to count as a subject, the prospective subject needed make the predicted response on the questionnaire--viz., that he prefers East Indian culture if he is an East Indian, and prefers Caucasian Canadian culture if he is a Caucasian Canadian.

Stimulus Materials

The stimulus materials consisted of: two types of booklets (i.e., one written in English, the other in Hindi) each containing three sets of 16 items; a questionnaire; and four instruction sheets, three of which

contain ratings' scales. (See Appendix A.)

Procedure

A 3 x 2 x 2 mixed factorial design was employed with repeated measures on the last two factors. That is, subjects were selected from two basic populations (East Indians living in India and Caucasian Canadians living in Canada). The East Indians were nonrandomly dichotomized into two populations of 23 and 19 subjects each. One Indian population of 19 subjects received the booklets written in English and the other of 23 subjects read the booklets written in Hindi.

As one repeated measures two-valued variable, either set of 16 items was dichotomized into two permutations of 8 items each. One permutation consisted of items each anticonforming to one East Indian cultural norm while anticonforming to zero Caucasian Canadian norms. The other permutation of 8 items anticonformed on each of its items to one Caucasian Canadian cultural norm while anticonforming to zero East Indian norms.

Each subject was assigned to one of two treatments (i.e., English language or Hindi). In either treatment the subject judged each of 16 items on three dependent measures--degree of amusement, whether he considered the item hostile, and degree of surprise he attributed to

the item. (Because the amusement measure seems most sensitive to influence by the other two dependent measures, it appeared desirable to obtain amusement measures first.)

Each of the two treatment materials (i.e., two types of booklets) was contained in a large envelope. On the outside of this large envelope was pasted the beginning instructions. (See Appendix A.) Within each of the two large treatment envelopes were four smaller envelopes. The first of these smaller envelopes, labelled 1, contained an amusement instruction-scoring sheet and a set of 16 items. This set of 16 items was randomly numbered and also in a different random order for each subject and for each administration to each subject.

The second smaller envelope, labelled 2, within a given large envelope consisted of a hostility instruction-scoring sheet and the identical set of 16 items, but in a different random order.

The third smaller envelope, labelled 3, within a given large envelope consisted of a surprising instruction-scoring sheet and again the identical set of 16 items, yet again in a different random order.

The fourth smaller envelope, labelled 4, within a given larger envelope consisted merely of a brief

questionnaire. (All materials described above are contained in Appendix A.)

Thus the instructions to the subjects were exactly those given, in the order mentioned above, on the four instruction sheets and questionnaire.

Subjects were tested anonymously--five or more at a time so they would know their results were anonymous. (This anonymity created no problem in tabulating data since the experimenter only needed know which of the populations each subject was from and all five or more subjects within a given testing were from the same population.)

Each subject was tested by an experimenter who was a member of the subject's own ethnic group and had been socialized into that subject's culture. Such a procedure seems preferrable to that of systematically varying experimenters across the subject populations because this latter technique would more probably have damaged rapport and invalidated results when the experimenter was of a different ethnic group from the subject.

Since the set of items was in a different random order not only across subjects but also for the three sets of items within subjects, the item-number rows on each answer sheet were in a different order. To facilitate ease of the following instructions, these item

numbers for each set of items were filled in beforehand by the author.

While the experimenter read the instructions on the top of the large envelope, the experimenter also demonstrated to the subjects what they were supposed to do with the four envelopes within the large one.

The experimenter made certain that the subjects did not refer back to the already filled in answer sheets, so that their judgements of the other measures employed were not affected by already made judgements on the items.

The four instruction-answer sheets were placed in the four envelopes so that the subject neither saw nor knew of the subsequent instruction-answer sheet as he started from the instruction-answer sheet in the envelope numbered 1. The reason for this control is to prevent the subject's answers on each preceding instruction -answer sheet from having been influenced by a knowledge of what he was required to rate in the following scales. Also a large envelope was provided to prevent the material from the four answer sheets from being accidentally mixed with some answer sheets from other subjects.

Of the three dependent measures employed (i.e., amusement, hostility, and surprising) the subjects were

asked to rate the item on a five-point scale which ranged from VERY AMUSING to NOT AT ALL AMUSING, VERY HOSTILE to NOT AT ALL HOSTILE, and VERY SURPRISING to NOT AT ALL SURPRISING. (See Appendix A.)

Pretest

A pretest was performed to remove the 'bugs' from the experiment. In all, 59 subjects (29 North Americans and 30 East Indians) were pretested. All 59 subjects were students, professors or librarians at the University of Windsor.

An item and subject analyses of the results were conducted.

The results helped improve the final format of the thesis. It also helped to indicate the inadequacy of the instructions in the pretest. Thus the instructions and form of the instruction-answer sheet were modified.

Two dependent measures were also introduced after the pretest. These are a measurement of hostility (to replace joke judgements in the pretest) and a surprising measurement. These measures are added so that, if the subjects did not find the item amusing, they could still indicate how incongruous they thought it was by judging it as hostile or surprising.

CHAPTER 111

RESULTS

The five-point scale on which Ss rated the items were collapsed into two categories for purposes of statistical analysis--Amusing (which included the Very Amusing, 5, plus category 4. The other of the two categories into which the three were collapsed included the remaining three of the original five--i.e., Very Unamusing, 1, plus categories 2 and 3. The same collapsing procedure was applied to the other two dependent variables--hostile, and surprising.

The results for the set of sixteen items for the amusing, hostile, and surprising dependent variables for three groups are presented in Tables 1, 2, and 3 respectively. The raw score results for each subject are presented in Appendix B. Tables 4, 5, and 6 indicate the results and predictions for the sixteen items on Hypotheses 1, 11, and 111 respectively. Thus, predictions are by items rather than by subjects. A 1 in a particular cell of Table 4 indicates that the item under consideration was predicted correctly on that particular hypothesis--while a 0 would indicate that the item was predicted incorrectly on the hypothesis in question. And 1/2 would

TABLE 1

Amusement Judgements by East Indian Hindi Group (Elh), East Indian English Group (Ele), and Caucasian Canadian Group (CC) for both Permutations and Degree of Ego-Involvement (i.e.) Attitude vs. Belief)

P_{1a}[1]

Group	Elh		Ele		CC	
Item	A[3]	Total	A	Total	A	Total
4	7	23	6	19	21	20
10	2	23	5	19	4	20
12	9	23	10	19	3	20
14	9	23	8	19	2	20
Total	27	92	29	76	11	80

P_{2a}[2]

Group	Elh		Ele		CC	
Item	A	Total	A	Total	A	Total
1	5	23	5	19	2	20
6	6	23	1	19	2	20
8	10	23	6	19	6	20
9	6	23	5	19	3	20
Total	27	92	17	76	13	80

P_{1b}[4]

Group	Elh		Ele		CC	
Item	A	Total	A	Total	A	Total
3	12	23	14½	19	6	20
7	11	23	14	19	5	20
11	11	23	12	19	3	20
15	8½	23	14	19	7½	20
Total	42½	92	54½	76	21½	80

P_{2b}[5]

Group	Elh		Ele		CC	
Item	A	Total	A	Total	A	Total
2	10	23	2½	19	9	20
5	7	23	5	19	2	20
13	15	23	9	19	10	20
16	11	23	6	19	6	20
Total	43	92	22½	76	27	80

P_1 = Any item anticonforming to an East Indian social norm but nonanticonforming to the Caucasian Canadian norm on the same social issue.

P_2 = Any item anticonforming to a Caucasian Canadian norm but nonanticonforming to the East Indian norm on the same social issue.

a = attitude

b = belief

TABLE 1 (Continued)

[1] P_{1a} = Items unidimensionally anticonforming to East Indian attitude norm but nonanticonforming to Caucasian Canadian attitude norm.

[2] P_{2a} = Items unidimensionally anticonforming to Caucasian Canadian attitude norm but nonanticonforming to East Indian attitude norm.

[3] A = Amusing

[4] P_{1b} = Items unidimensionally anticonforming to East Indian belief norm but nonanticonforming to Caucasian Canadian belief norm.

[5] P_{2b} = Items unidimensionally anticonforming to Caucasian Canadian belief norms but nonanticonforming to East Indian belief norms.

TABLE 2

Hostility Judgements by East Indian Hindi Group (Elh), East Indian English Group (Ele), and Caucasian Canadian Group (CC) for Both Permutations and Degree of Ego-Involvement (i.e., Attitude vs. Belief)

P_{1a}[1]

Group	Elh		Ele		CC	
Item	H[3]	Total	H	Total	H	Total
4	3	23	4	19	6	20
10	15	23	11	19	13	20
12	13	23	14	19	8	20
14	19	23	12	19	0	19
Total	50	92	41	76	27	79

P_{2a}[2]

Group	Elh		Ele		CC	
Item	H	Total	H	Total	H	Total
1	7	23	5	19	6	20
6	4	23	1	19	9	20
8	7	23	9	19	9	20
9	14	23	11	19	13	20
Total	32	92	26	76	37	80

P_{1b}[4]

Group	Elh		Ele		CC	
Item	H	Total	H	Total	H	Total
3	17	23	14	19	3	20
7	7	23	7	19	3	20
11	14	23	9	19	0	20
15	17	23	14	19	1	20
Total	55	92	44	76	7	80

P_{2b}[5]

Group	Elh		Ele		CC	
Item	H	Total	H	Total	H	Total
2	4	23	2	19	4	20
5	6	23	7	19	9	20
13	7	22	7	19	2	20
16	2	23	4	19	3	20
Total	19	91	20	76	18	80

P_1 = Any item anticonforming to an East Indian social norm but nonanticonforming to the Caucasian Canadian norm on the same social issue.

P_2 = Any item anticonforming to a Caucasian Canadian norm but nonanticonforming to the East Indian norm on the same social issue.

a = attitude

b = belief

TABLE 2 (Continued)

[1]P_{1a} = Items unidimensionally anticonforming to East Indian attitude norm but nonanticonforming to Caucasian Canadian attitude norm.

[2]P_{2a} = Items unidimensionally anticonforming to Caucasian Canadian attitude norm but nonanticonforming to East Indian attitude norm.

[3]H = Hostile

[4]P_{1b} = Items unidimensionally anticonforming to East Indian belief norm but nonanticonforming to Caucasian Canadian belief norm.

[5]P_{2b} = Items unidimensionally anticonforming to Caucasian Canadian belief norm but nonanticonforming to East Indian belief norm.

TABLE 3

Surprising Judgements by East Indian Hindi Group (Elh), East Indian English Group (Ele), and Caucasian Canadian Group (CC) for Both Permutations and Degree of Ego-Involvement (i.e., Attitude vs. Belief)

P_{1a}[1]

Group	Elh		Ele		CC	
Item	S[3]	Total	S	Total	S	Total
4	3	23	6	19	1	20
10	6	23	6	19	3	20
12	13	23	16	19	2	20
14	16	23	8	19	2	20
Total	38	92	36	76	8	80

P_{2a}[2]

Group	Elh		Ele		CC	
Item	S	Total	S	Total	S	Total
1	6	23	4	19	12	20
6	4	23	3	19	13	20
8	6	23	7	19	15	20
9	7	23	6½	19	12	19
Total	23	92	20½	76	52	79

P_{1b}[4]

Group	Elh		Ele		CC	
Item	S	Total	S	Total	S	Total
3	20	23	14	19	3	20
7	16	23	14	19	6	20
11	13	23	6	19	1	20
15	18	23	15	19	4	20
Total	67	92	49	76	14	80

P_{2b}[5]

Group	Elh		Ele		CC	
Item	S	Total	S	Total	S	Total
2	1	23	0	19	17	20
5	5	23	2	19	14	20
13	12	23	9	19	19	20
16	4	23	2	19	13	20
Total	22	92	13	76	63	80

P_1 = Any item anticonforming to an East Indian norm but nonanticonforming to the Caucasian Canadian norm on the same social issue.

P_2 = Any item anticonforming to a Caucasian Canadian norm but nonanticonforming to the East Indian norm on the same social issue.

a = attitude

b = belief

TABLE 3 (Continued)

[1]P_{1a} = Items unidimensionally anticonforming to East Indian attitude norm but nonanticonforming to Caucasian Canadian attitude norm.

[2]P_{2a} = Items unidimensionally anticonforming to Caucasian Canadian attitude but nonanticonforming to East Indian attitude norm.

[3]S = Surprising

[4]P_{1b} = Items unidimensionally anticonforming to East Indian belief norm but nonanticonforming to Caucasian Canadian belief norm.

[5]P_{2b} = Items unidimensionally anticonforming to Caucasian Canadian belief norm but nonanticonforming to East Indian belief norm.

TABLE 4

Results of Predictions on Amusement Judgements by Items for East Indian Hindi Group vs. Caucasian Canadian Group (Elh vs. CC), East Indian English Group vs. Caucasian Canadian Groups (Ele vs. CC) and East Indian Groups vs. Caucasian Canadian Group (El_{h+e} vs. CC)

Items	Elh vs. CC	Ele vs. CC	El_{h+e} vs. CC
4	1	1	1
10	1	1	1
12	1	0	1
14	1	1	1
3	1	1	1
7	1	1	1
11	1	1	1
15	0	1	0
1	1	1	1
6	1	1	1
8	0	1	0
9	1	1	1
2	1	1	1
5	0	1	0
13	½	1	1
16	0	1	1
Right:Wrong	11½:4½	15:1	13:3

Right = 1

Wrong = 0

Tie = ½

TABLE 5

Results of Predictions on Hostility Judgements by Items for East Indian Hindi Group vs. Caucasian Canadian Group (EIh vs. CC), East Indian English Group vs. Caucasian Canadian Group (EIe vs. CC) and East Indian Groups vs. Caucasian Canadian Group (EI_{h+e} vs, CC)

Items	EIh vs. CC	EIe vs. CC	EI_{h+e} vs. CC
4	0	0	0
10	0	0	0
12	1	1	1
14	1	1	1
3	1	1	1
7	1	1	1
11	1	1	1
15	1	1	1
1	1	1	1
6	1	1	1
8	1	1	1
9	1	1	1
2	1	1	1
5	0	0	0
13	1	1	1
16	1	1	1
Right:Wrong	13:3	13:3	13:3

Right = 1

Wrong = 0

Tie = ½

TABLE 6

Results of Predictions on Surprising Judgements by Items for East Indian Hindi Group vs. Caucasian Canadian Group (EIh vs, CC), East Indian English Group vs. Caucasian Canadian Group (EIe vs. CC) and East Indian Groups vs. Caucasian Canadian Group (EI_{h+e} vs. CC)

Items	EIh vs. CC	EIe vs. CC	EI_{h+e} vs. CC
4	1	1	1
10	1	1	1
12	1	1	1
14	1	1	1
3	1	1	1
7	1	1	1
11	1	1	1
15	1	1	1
1	1	1	1
6	1	1	1
8	1	1	1
9	1	1	1
2	1	1	1
5	1	1	1
13	1	1	1
16	1	1	1
Right:Wrong	16:0	16:0	16:0

Right = 1

Wrong = 0

Tie = $\frac{1}{2}$

indicate a tie.

Analysis of variance could not be employed for at least the two reasons that scalability more powerful than ordinal could not be assumed nor could homoscedasticity. Homogeneity of variance could not be assumed because the subjects were drawn from different populations.

Nonparametric statistics were employed. Since the prediction for each hypothesis was by items rather than by subjects, a Chi Square test was performed to determine whether more items were predicted correctly on a given Hypothesis than by chance, (although it was sometimes possible to employ an exact probability test instead, based on expansion of the binomial theorem).

The probability of each item being predicted correctly on a given hypothesis was 1/2. To determine whether an item scored in the predicted direction on a given hypothesis, a formula was employed. Formulas 1 and 11 below, were used to test the 16 items for Hypothesis 1. Formula 1 was employed for the 8 items which anticonformed to the belief norm of either group, while Formula 11 was used for the 8 remaining attitude items. Hypothesis 11 required the service of Formulas 1, 11, and 111, as discussed below, while Hypothesis 111 needed Formulas 1, and 1V.

The .05 level of significance was chosen in determining whether a given hypothesis was substantiated. Since there are two Indian groups (those taking the experiment in English and those in Hindi), each hypothesis was tested three times. The first test was based on a comparison of the Indian Hindi group with the Caucasian Canadian. The second test compared the Indian English group with the Caucasian Canadian, while the third test compared the combination of the two Indian groups with the Caucasian Canadian.

Formula 1: $(\epsilon - \bar{\epsilon}) > (\sim\epsilon - \sim\bar{\epsilon})$

In the above formula ϵ indicates the percentage of judgements which were in the higher of the two categories for that one of the two groups whose norm was unidimensionally anticonformed to on the dependent measure in question.

For instance, Item 2 anticonforms to the Caucasian Canadian belief norm. On Hypothesis 1 (see Table 1) 9/20 of the Canadian Caucasians found item 2 either Amusing, 5, or 4. Thus the value 45% is substituted for ϵ in Formula 1 for Hypothesis 1 on Item 2.

In Formula 1 above $\bar{\epsilon}$ represents the average percentage of judgements across all 16 items that were in the higher of the two categories (i.e., 4 or 5) for that one of the two groups whose norm was unidimensionally anticonformed to on the dependent measure in question. For

instance, for any of the 8 items in Permutation 2, $\bar{e}$ indicates the average or mean anticonformity percentage for the Caucasian Canadian group. Table 1 indicates that out of 320 judgements by Caucasian Canadians, 72.5 were amusing (i.e., either 4 or 5). Thus the percentage to substitute for $\bar{e}$ on item 2 (and any of the remaining 7 items on P2 for Hypothesis 1) is 22.7%.

Suppose the Indian Hindi group is the one being compared with the Caucasian Canadian on Hypothesis 1. Then on Item 2 $\sim e$ indicates the percentage of the Indian Hindi group which gave Item 2 a 4 or 5 amusement rating (the symbol $\sim e$ indicating the group whose relevant norm was <u>nonanticonformed</u> to on the item in question). $\bar{e}$ denotes the <u>average</u> percentage of amusement judgements (i.e., 4 or 5) across all 16 items by the group whose relevant norm was <u>nonanticonformed</u> to on any of the 8 P2 items.

Therefore, substituting in the appropriate percentages for Item 2 on Hypothesis 1 on the Caucasian Canadian-Indian Hindi comparison in Formula 1 gives (45% - 22.7%) for the left-hand side of the formula or +22.3%. As Table 1 indicates the right-hand side of the formula gives 10/23 and 139.5/368 or (43.5% - 37.9%) = +5.6%. As +22.3% > +5.6%, so Item 2 is predicted correctly. A 1 is thereby inserted in the appro-

priate cell in Table 4.

Table 4 indicates that 4 1/2 of the 8 items were predicted correctly (and 3 1/2 incorrectly) for that one of the two groups (Caucasian Canadian or Indian Hindi) whose belief norm was anticonformed to on Hypothesis 1. Notice that 4 of these 8 items (P1) anticonform to an East Indian belief and the other 4 (P2) anticonform instead to a Caucasian Canadian belief.

However, 8 of the 16 items remain to be predicted and those predictions will require a different formula, Formula 11, below. Formula 11 applies to those 8 items which only anticonform to one of the two groups' attitude norms (i.e., which nonanticonform to both groups' belief norms). Both groups should find these latter 8 items relatively unamusing. Thus, both groups should be below the average on amusement judgments for each of these 8 items, as Formula 11 predicts:

Formula 11: $(\bar{e} + \sim \bar{e}) > (e + \sim e)$

Applying the data from Table 1 for Hypothesis 1 to the Caucasian Canadian-East Indian comparison reveals 7 out of 8 correct predictions and 1 wrong. (See Table 4.)

Therefore, Hypothesis 1 can now be tested for the Caucasian Canadian-Indian Hindi comparison. As Table 4 indicates 11 1/2 items were predicted correctly, and 4 1/2 incorrectly. Since 1 df is lost due to use of

means, df = 16 - 1 = 15. Correcting for continuity gives a $X^2 = 2.06$. On a one-tailed hypothesis $.10 > p > .05$. Thus Hypothesis 1 is only tentatively substantiated.

Hypothesis 1 is tested a second time by comparing the Indian English group with the Caucasian Canadian. The same formulas apply again to the same items and the two of four Canadian values in the appropriate formula for a given item of course remain the same. The only differences therefore involve the two Indian values for a given item. Mutatis mutandis from the data in Table 1, 15 of 16 items were predicted correctly; only Item 12, P1, anticonforming to the East Indian attitude while nonanticonforming to the Canadian attitude, was predicted incorrectly. (See Table 4.) On an exact probability test by expanding the binomial theorem, Hypothesis 1 is substantiated at p .0005 (one-tailed, df = 1).

Combining the two Indian groups into one Indian group with 42 subjects, provides a third test of Hypothesis 1--mutatis mutandis from Table 1 application of Formulas 1 and 11 to their appropriate items furnishes the results given in Table 4. That is 13 of 16 items were predicted correctly. Therefore $X^2 = 4.68$, df = 1, one-tailed, and $p < .02$.

The second of these three tests of Hypothesis 1 is the most appropriate test, since the other two tests

involve two different languages and therefore entangle the hypotheses in translation problems. Despite that fact the third test also substantiates Hypothesis 1 and the first test (the least appropriate of the three) almost does. It is therefore concluded that Hypothesis 1 is quite clearly substantiated.

Hypothesis 11 is also tested in the same three bi-group comparisons as Hypothesis 1 was and as Hypothesis 111 will be. Ss 4 and 5 ratings were counted as hostile. And Hypothesis 11 also employs Formula 1 in predicting for 8 of the items--with the difference that it is the 8 items in which attitude (rather than belief) is the variable with respect to the two groups being compared. (That is, Hypothesis 1 employed Formula 1 on Items 3, 7, 11, and 15, all P1 Items; and on Items 2, 5, 13, and 16 from P2. However, Hypothesis 2 uses Formula 1 on P1 Items 4, 10, 12, and 14; and on P2 Items 1, 6, 8, and 9.

One would therefore expect, on the basis of the above information, that Formula 11 would be applied to the remaining 8 items which vary whether the group anti-conforms to a belief norm (i.e., Items 3, 7, 11, 15 and 2, 5, 13, and 16). However, Formula 11 can only be appropriately applied to 6 of these 8 belief norms. It cannot be applied appropriately to Items 3 and 15 from

P1. The reason Formula 11 is inappropriate for predicting these two items is that both of these items anticonform to both groups attitudes (though anticonforming only to the East Indian belief). The other 6 of the 8 items which vary belief anticonformity across the two groups compared hold attitude constant by rendering the attitude non-anticonformity for both groups.

Since it is anticonformity to an attitude norm (not anticonformity to a belief norm) which is predicted to generate hostility, thus Formula 11 appropriately applies to 6 of 8 of these belief-variable Items. However, both groups should be above their averages on items 3 and 15. So Formula 111 would apply to them.

Formula 111: $(e + \sim e) > (\bar{e} + \sim \bar{e})$

Formula 111 is actually Formula 11, except the left-hand and right-hand sides of Formula 11 have been interchanged.

It can be determined from Tables 2 and 5 that application of Formula 1 to the appropriate 8 items on Hypothesis 11 for the Caucasian Canadian-Indian Hindi comparison reveals 6 of 8 predictions being correct. The two wrong predictions are for Items 4 and 10. (See Table 5.)

Application of Formula 11 to the appropriate 6 items on Hypothesis 11 for the same two groups indicates 5 of 6 items were predicted correctly. (As Table 5 indicates only Item 5 was predicted incorrectly.)

Application of Formula 111 to its two appropriate items on Hypothesis 11 for the same two groups indicates that Items 3 and 15 both were predicted correctly, as Table 5 indicates.

Thus the first test of Hypothesis 11 found 13 of 16 items predicted correctly on the hostility dependent variable. Since that is the same number correct as on the third test of Hypothesis 1, a Chi-Square test again yields $p < .02$.

Applying the same reasoning, mutatis mutandis, to the second test of Hypothesis 11 (i.e., Caucasian-Canadian compared with Indian English) again finds 13 of 16 items predicted correctly (and exactly the same 13, as Table 5 indicates). Thus the Chi-Square test finds $p < .02$.

Not surprising, then, when the two Indian groups are combined into one to be compared with the Caucasian-Canadian for Hypothesis 11, again the same 13 of 16 items are predicted correctly. Again the Chi-Square test yields $p < .02$. Therefore, Hypothesis 11 is clearly substantiated.

Hypothesis lll will also be tested three times. Formulas are applied to the percentages computed on data obtained by subjects' ratings (4 or 5) as in Hypothesis 1, and 11. Formula 1 will be employed exactly as on Hypothesis 1--for predicting the 8 items which each vary the two groups compared with respect to a belief norm. The remaining 8 items which each vary the two groups compared with respect to an attitude norm, employ a new formula, Formula lV.

Formula lV: $(\sim\bar{e} \gtrdot \sim e)$

Formula lV obviously only contains half as many terms as each of the other three formulas (i.e., two instead of four). Thus Formula IV is clearly defective in comparison with the other three formulas in that, unlike the other three, Formula lV does not permit statistical correction for any constant error introduced by extraneous differences between the two permuations of items with respect to the dependent variable. However, if both permutaitons of 4 items each are predicted correctly when Formula lV is applied to its 8 appropriate items, then such constant error is, for purposes of testing Hypothesis lll, sufficiently corrected for.

The first test of Hypothesis lll again involves the Caucasian Canadian-Indian Hindi comparison. Applying Formula 1 to the 8 appropriate items on Hypothesis

lll finds all 8 predicted correctly. Applying Formula lV also finds all of its 8 items predicted correctly. Applying Formula lV also finds all of its 8 items predicted correctly. Thus, with respect to these last 8 items, since all members of P1 (4) and all members of P2 (4) were predicted correctly, the constant error discussed above can legitimately be ignored for purposes here without 'stacking the cards' in favor of Hypothesis lll.

On an exact probability test then, Hypothesis lll is substantiated at $p < .00005$.

Testing Hypothesis lll a second time (Caucasian Canadians compared with Indian English) again reveals all 16 items predicted correctly. (See Tables 3 and 4.)

Testing Hypothesis lll a third time by combining the two Indian groups into one, to be compared with the Caucasian Canadians, again indicates all 16 items predicted correctly.

Thus an exact probability test of the second and third applications of Hypothesis lll provides the same significance level as the first application; viz., $p < .00005$. Clearly then Hypothesis lll is substantiated.

CHAPTER IV

DISCUSSION

Since all three hypotheses have been substantiated, it is now possible to draw conclusions consistent with the expected relationships between the three dependent variables. The central independent variables here concern degree of ego-involvement and degree of social-normative incongruity. The attitude norms which were varied in eight of the items employed here are considered to be ego-involving while the belief norms which were varied on the remaining eight norms were considered to be nonego-involving. This thesis, however, does not commit itself to the view that all attitudes are ego-involving and no beliefs are ego-involving, and in this sense it is therefore ego-involvement, rather than the attitude-belief distinction, which is most central to this thesis.

The items which anticonformed to the subjects' belief norms tended to be judged amusing, nonhostile, and surprising. However, the items which anticonform to the subjects' attitude norms tend to be judged non-amusing, hostile, and surprising. Nonego-involving anticonformity incongruity is nonthreatening and there-

fore amusing and nonhostile. Notice, however, that (as predicted) belief anticonformity items are surprising. (The surprising measure seems to also serve as a validity check that the belief items do really anticonform to the subjects' attitude.) However, ego-involving anticonformity is nonamusing and hostile, because threatening. On the other hand, the items which nonanticonform to either the subjects' belief or attitude norms tend to be judged nonamusing, nonhostile and nonsurprising.

The question arises as to why the Indian Hindi group did not seem to conform to the theory as well as the Indian English group, especially on the amusement dependent measure. The reason may be due to translation problems as the use of different languages brings in another treatment variable. For instance, it is difficult to translate certain words--to find equivalents in another language.

Some words may not be frequently used by members of a particular social group. One such example is the word "premarital" in item number 15. As this belief item belonged to P1, i.e., anticonformity to Indian belief, so it should be funny to both Indian groups. It came out as predicted for the Indian English group and wrong for the Indian Hindi group. When the word

"premarital" was translated into "मैथुन" it did not amuse the Indian Hindi group as the word "premarital" is more frequently used among educated Indians (such as employed in this experiemnt) than the Hindi word "मैथुन".

This experiment established a connecting link between Nerhardt (1970) and Mutuma (1976) based on Rothbart's (1973) emphasis that incongruity is amusing if rendered non-threatening. It replicated the results of Nerhardt (1970) by showing that anticonformity to an unidimensional belief norm is amusing. The only difference is that the present experiment social psychologized the psychophysical norms. This experiment suggests an answer to a question posed by Mutuma (1976) regarding what would happen if there were an unidimensional anticonformity to an attitude norm. Present findings suggest that the subject would be threatened (i.e., find such items hostile and nonamusing), because there were not enough anticonformity dimensions to switch the subject from a threatened, serious mood to a nonthreatened, playful mood.

The present experiment concerns itself with amusement, hostility and surprising judgements as functions of ethnic group identifications, degree of social-normative incongruity and ego-involvement. The three hypotheses predict that the items which anticonform to the subjects' belief norms would tend to be judged amusing, and surprising while the items which anticonform to the subjects' attitude norms would tend to be judged hostile. One group of 20 subjects consisted of Caucasian Canadians (tested in Kingsville, Canada). The other two groups of East Indians both lived in New Delhi, India. One of these two Indian groups consisted of 23 subjects who took the experiment in Hindi and 19 subjects who took the experiment in English. A 3 x 2 x 2 factorial design was employed with repeated measures on the last two factors. All three hypotheses were substantiated.

REFERENCES

Aristotle. The Poetics. In W. D. Ross (Ed.), Aristotle: Selections. New York: Charles Scribner's Sons, 1955.

Arnez, N. L., & Anthony, C. B. Contemporary Negro humour as social satire. Phylon, 1968, 29, 339-346.

Beattie, J. Essay on Laughter and Ludicrous Composition. In Essays. Edinburgh: William Creech, 1776.

Bergson, H. Laughter: An Essay on the Meaning of the Comic. New York: MacMillan, 1911.

Berlyne, D. E. Conflict, Arousal and Curiosity, New York: McGraw Hill, 1960.

Burma, J. H. Humor as a technique in race conflict. American Sociological Review, 1946, 11, 710-715.

Deckers, L., & Kizer, P. A note on weight discrepancy and humour. Journal of Psychology, 1974, 86, 309-312.

Deckers, L., & Kizer, P. Humour and the incongruity hypothesis. Journal of Psychology, 1975, 90, 215-218.

Descartes, R. The Passion of the Soul. In E. S. Haldane, & G. R. T. Ross (Trans.), The Philosophical Works of Descartes. Vol. 1. New York: Cambridge University Press, 1970.

Freud, S. Humour. International Journal of Psychoanalysis, 1928, 9, 1-6.

Gerard, A. An Essay on Taste. London, 1759.

Gerber, W. S., & Routh D. K. Humor response as related to violation of expectancies and to stimulus intensity in a weight-judgment task. Perceptual and Motor Skills, 1975, 41, 673-674.

Greig, J. Y. T. The Psychology of Laughter and Comedy. New York: Dodd, Mead, 1923.

Goldman, M. The sociology of Negro humor. Unpublished Doctoral Dissertation. Yale University, 1970.

Gutman, J., & Priest, R. F. When is aggression funny? Journal of Personality and Social Psychology, 1969, 12, 60-65.

Harter, S., Shultz, T. R., & Blum, B. Smiling in children as a function of their sense of mastery. Journal of Experimental Child Psychology, 1971, 12, 396-404.

Kagan, J. Change and Continuity in Infancy. New York: Wiley, 1971.

Kant, I., Kritik der Urteilskraft. Berlin: Lagarde, 1790.

La Fave, L., Haddad, J., & Marshall, N. Humor judgments as a function of identification classes. Sociology and Social Research, 1974, 58, 184-194.

La Fave, L., Haddad, J., & Maesen, W. A. Superiority, Enhanced Self-Esteem, and Perceived Incongruity Humour Theory. In A. J. Chapman, & H. C. Foot (Eds.) Humour and Laughter: Theory, Research, and Applications. New York: John Wiley, 1976, pp. 63-91.

Mannell, R. C. & La Fave, L. Humour judgements and the "playful attitude". Symposium Proceedings, The Association for the Anthropological Study of Play, Detroit, 1975.

McGhee, P. E. Moral development and children's appreciation of humor. Developmental Psychology, 1974, 10, 514-525.

McGhee, P. E. On the Origins of Incongruity Humor: Fantasy Assimilation versus Reality Assimilation. In J. H. Goldstein & P. E. McGhee (Eds.) The Psychology of Humor. New York: Academic Press, 1972, pp. 61-79.

Mead, M. Sex and Temperament in Three Primitive Societies. New York: Mentor Books, 1950.

Middleton, R. Negro and white reactions to racial humor. Sociometry, 1959, 22, 175-182.

Mull, H. K. A study of humor in music. American Journal of Psychology, 1949, 62, 560-566.

Mutuma (11), J. L. Ethnic humour, joke and strange judgements as functions of multi-dimensional social-normative incongruity, identification class, and social setting. Unpublished Master of Arts Thesis, University of Windsor, Windsor, Ontario, Canada, 1976.

Nerhardt, G. Humour and inclination to laugh: emotional reactions to stimuli of difference divergence from a range of expectancy. Scandinavian Journal of Psychology, 1970, 11, 185-195.

Piaget, J. Play, Dreams and Imitation in Childhood. New York: Norton, 1951.

Radcliffe-Brown, A. R. A further note on joking relationships. Africa, 1949, 19, 133-140.

Radcliffe-Brown, A. R. On joking relationships. Africa, 1940, 13, 195-210.

Rothbart, M. K. Laughter in young children. Psychological Bulletin, 1973, 80, 247-256.

Sherif, M., & Sherif, C. W. Social Psychology. New York: Harper & Row, Publishers, 1969.

Shultz, T. R. A cognitive developmental analysis of humour. In A. J. Chapman, & H. C. Foot (Eds.) Humour and Laughter: Theory, Research, and Application. New York: John Wiley, 1976, pp. 11-36.

Shultz, T. R. The role of incongruity and resolution in children's appreciation of cartoon humor. Journal of Experimental Psychology, 1972, 13, 456-477.

Shultz, T. R., & Zigler, E. Emotional concomitants of visual mastery in infants: the effects of stimulus movement on smiling and vocalizing. Journal of Experimental Child Psychology, 10, 390-402.

Spencer, H. Physiology of Laughter. MacMillan's Magazine, 1860, 1, 395 (Reprinted in Essays, Scientific, Political and Speculative. Vol. 2, New York: Appleton, 1891.)

Suls, J. M. A two-stage model for appreciation of jokes and cartoons: an information processing analysis. In J. H. Goldstein & P. E. McGhee (Eds.) The Psychology of Humor. New York: Academic Press, 1972, pp. 81-99.

Tomkins, S. Affect, Imagery Consciousness. Vol. 1. The Positive Affects. New York: Springer, 1962.

White, R. W. Motivation reconsidered: the concept of competence. Psychological Review, 1959, 66, 297-333.

Willmann, J. M. An analysis of humor and laughter. American Journal of Psychology, 1940, 53, 70-85.

Wolff, H. A., Smith, C. E., & Murray, H. A. The psychology of humor I. A study of responses to race-disparagement jokes. Journal of Abnormal and Social Psychology, 1934, 28, 341-365.

Zijderveld, A. C. Jokes and their relation to social reality. Social Research, 1968, 35, 286-311.

APPENDICES

APPENDIX A

STIMULUS MATERIALS (English and Hindi)

(i) Instructions and Response-sheets

(ii) Items

(iii) Questionnaire

INSTRUCTIONS TO JUDGES

We are doing research to determine the properties of items. We need your help as judges to achieve this objective. However, we do not need to know your name.

Please do not open this large envelope until you have completed reading the instructions on this page.

The large envelope contains four smaller envelopes. These four are numbered 1, 2, 3, and 4.

After you have finished reading the instructions on this page, you will open the large envelope and remove only the envelope numbered 1.

You will remove the instruction-answer sheet and the set of items from envelope 1. You will read and follow those instructions and when you have completed rating the 16 items, please return both the set of items and the instruction-answer sheet to envelope 1. Then return envelope 1 to the large envelope, while removing the envelope labelled 2.

Remove the material from envelope 2, follow the instructions, then return that material to envelope 2. Next return envelope 2 to this large envelope while removing envelope 3.

Remove the contents of envelope 3. Follow the same procedure for the two remaining envelopes-- 3 and 4 respectively.

Do you have any questions?

निर्णायकों को आदेश

नदों की वस्तु विशेषताएँ हैं। इस विषय पर हम खोज कर रहे हैं। इसके लिए हमें आपकी निर्णायकों (जजों) के रूप में सहायता की आवश्यकता है। यद्यपि आपको अपना नाम बताने की आवश्यकता नहीं।

कृपया जब तक आप इस पृष्ठ पर आदेश पढ़ नहीं लेते तब तक बड़े लिफ़ाफ़े को न खोलिए।

बड़े लिफ़ाफ़े में चार छोटे लिफ़ाफ़े हैं। इन पर क्रम के अनुसार 1, 2, 3, और 4 नं० लिखे हुए हैं।

आदेश पढ़ने के पश्चात बड़ा लिफ़ाफ़ा खोलिए और केवल लिफ़ाफ़ा नं० 1 निकालिए।

आप लिफ़ाफ़ा नं० 1 से आदेश-उत्तर पत्र और नदों का संग्रह निकालिये। आप इन आदेशों को पढ़कर उनके अनुसार चलिये। और 16 नदों को जाँचने के पश्चात, कृपया आदेश उत्तर-पत्र और नदों का संग्रह दोनों ही लिफ़ाफ़ा नं० 1 में डाल दीजिए। तब लिफ़ाफ़ा नं० 2 निकालते हुए, लिफ़ाफ़ा नं० 1 बड़े लिफ़ाफ़े में वापिस डाल दीजिए।

लिफ़ाफ़ा नं० 2, के भीतर की विषय वस्तु निकालिए, आदेशों के अनुसार चलिए और तब लिफ़ाफ़ा नं० 2 में वापिस डाल दीजिए। इसके पश्चात लिफ़ाफ़ा नं० 3 निकालते हुए, लिफ़ाफ़ा नं० 2, बड़े लिफ़ाफ़े में वापिस डाल दीजिए।

लिफ़ाफ़ा नं० 3 के भीतर की विषय वस्तु निकालिए। शेष बचे हुए लिफ़ाफ़े नं० 3, और 4 के लिए यही ढंग अपनाइये।

क्या आपको कोई प्रश्न है?

INSTRUCTIONS TO JUDGES

You are given a set of 16 items. These 16 items are numbered in the same order as the ITEM NUMBERS in the left column below. For instance, the first row has number ____ recorded under the ITEM NUMBERS column. Notice that number ____ also appears on the first item.

Now read that first or top item numbered ____. Please check in the same row (to the right of that first item numbered ____ below) in the appropriate one of the FIVE boxes to indicate how amusing that item is.

Next read the second item numbered ____ and check to the right of the ITEM NUMBER ____ below how amusing that second item is.

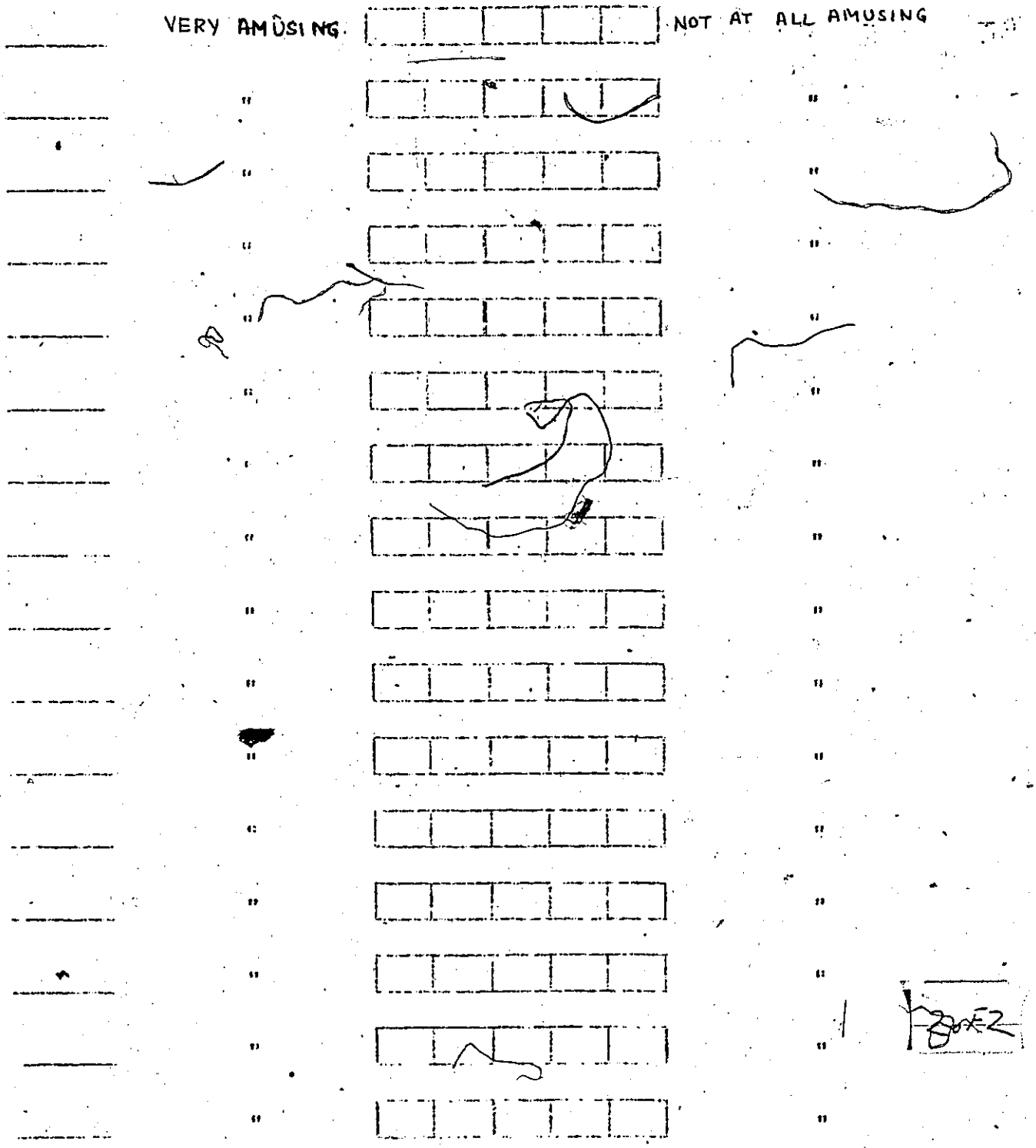
Continue proceeding as above until you have rated all 16 items as to how amusing they are. Do you have any questions?

______	VERY AMUSING	☐	☐	☐	☐	☐	NOT AT ALL AMUSING
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"

item is.

Next read the second item numbered ____ and check to the right of the ITEM NUMBER ____ below how amusing that second item is.

Continue proceeding as above until you have rated all 16 items as to how amusing they are. Do you have any questions?



INSTRUCTIONS TO JUDGES

You are given a set of 16 items. These 16 items are numbered in the same order as the ITEM NUMBERS in the left column below. For instance, the first row has number ___ recorded under the ITEM NUMBERS column. Notice that number ___ also appears on your first item.

Now read that first or top item numbered ___. Please check in the same row (to the right of the first item numbered ___ below) in the appropriate one of the FIVE boxes to indicate how hostile that item is.

Next read the second item numbered ___ and check to the right of ITEM NUMBER ___ below how hostile that second item is.

Continue proceeding as above until you have rated all 16 items as to how hostile they are. Do you have any questions?

ITEM NUMBERS

___	VERY HOSTILE	☐☐☐☐☐	NOT AT ALL HOSTILE
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"
___	"	☐☐☐☐☐	"

the appropriate one of the FIVE boxes to indicate how hostile that item is.

Next read the second item numbered ____ and check to the right of ITEM NUMBER ____ below how hostile that second item is.

Continue proceeding as above until you have rated all 16 items as to how hostile they are. Do you have any questions?

ITEM NUMBERS

______	VERY HOSTILE	☐	☐	☐	☐	☐	NOT AT ALL HOSTILE
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"

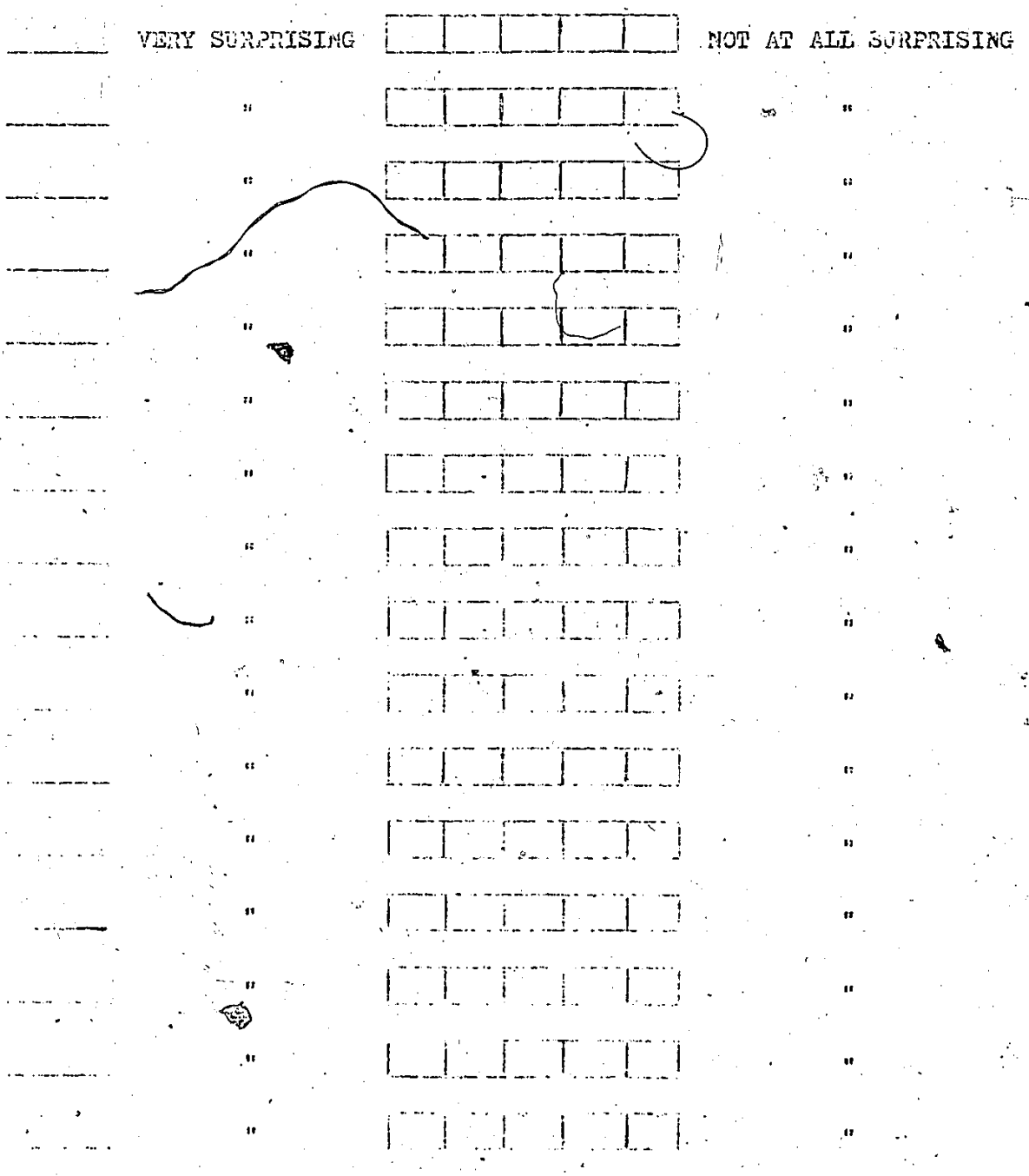
2 of 2

INSTRUCTIONS TO JUDGES

For the last time you are asked to rate the same set of 16 items. The question this time asks how surprising each item is. Remember the number of each item is already written for you in the ITEM NUMBERS column. Fill in the boxes on your right, as before, as to how SURPRISING each item is. Please check the appropriate box.

10/

ITEM NUMBERS



ITEM NUMBERS

_____ VERY SURPRISING [ ][ ][ ][ ][ ] NOT AT ALL SURPRISING

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

_____ " [ ][ ][ ][ ][ ] "

2 of 2

निर्णायकों को आदेश

आपको 16 मदों का एक संग्रह दिया जाता है। इन 16 मदों पर उसी क्रम के अनुसार नं० लिखे हैं जैसे नीचे बायें खाने में मद संख्या लिखी है। उदाहरण के तौर पर, पहली पंक्ति में नं०___ मद संख्या कालम के नीचे लिखा है। अब इसलिए, आपको वही नं०___ पहली मद पर मिलेगा।

अब पहली या सबसे ऊपर मद नं०___ पढ़िए। कृपया उसी पंक्ति (नीचे उस उस पहली मद नं०___ के दांई ओर) में, यह बताने के लिए कि वह मद कितनी मनोरंजक है, पाँच खानों में से उचित खाने में निशान लगाइये।

फिर दूसरी मद नं०___ पढ़िए और नीचे मद संख्या नं०___ के दायीं ओर, यह बताने के लिए कि वह दूसरी मद कितनी मनोरंजक है निशान लगाएँ।

जब तक आप सब 16 मदों को जाँच नहीं लेते कि कितनी मनोरंजक हैं तब तक वैसे ही करते जाइये जैसे कि ऊपर बताया गया है। कोई प्रश्न है?

मद संख्या							
____	बहुत मनोरंजक	☐	☐	☐	☐	☐	बिल्कुल मनोरंजक नहीं
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"
____	"	☐	☐	☐	☐	☐	"

लगाइये।

फिर दूसरी मद नं० —— पढ़िए और नीचे मद संख्या नं० —— के आगे और, यह बताने के लिए कि वह दूसरी मद कितनी मनोरंजक है निशान लगाएँ।

जब तक आप सब 16 मदों को जाँच नहीं लेते कि कितनी मनोरंजक हैं तब तक वैसे ही करते जाइये जैसे कि ऊपर बताया गया है। कोई प्रश्न है?

मद संख्या

______	बहुत मनोरंजक	☐	☐	☐	☐	☐	बिल्कुल मनोरंजक नहीं
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"
______	"	☐	☐	☐	☐	☐	"

2 of 2

निर्णायकों को आदेश

आपको 16 मदों का एक संग्रह दिया जाता है। इन 16 मदों पर उसी क्रम के अनुसार न० लिखे हैं जैसे नीचे बायें खाने में मद संख्या लिखी है। उदाहरण के तौर पर, पहली पंक्ति में न० — मद संख्या कालम के नीचे लिखा है। अब देखिए, आपको वही न०— पहली मद पर मिलेगा।

अब पहली या सबसे ऊपर मद न०— पढ़िए। कृपया उसी पंक्ति (नीचे उस पहली मद न०— के दांई ओर) में, यह बताने के लिए कि वह मद कितनी विरोधी है, पाँच खानों में से उचित खाने में निशान लगाइये।

फिर दूसरी मद न०— पढ़िए और नीचे मद संख्या न०— के दांई ओर, यह बताने के लिए कि वह दूसरी मद कितनी विरोधी है, निशान लगाइये। जब तक आप सब 16 मदों को जाँच नहीं लेते कि कितनी विरोधी है तब तक ऐसे ही करते जाइये जैसे ऊपर बताया गया है। कोई प्रश्न हैं?

मद संख्या			
____	बहुत विरोधी	☐☐☐☐☐	बिल्कुल विरोधी नहीं
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"

उचित खाने में निशान लगाइये।

फिर दूसरी मद न० — पढ़िए और नीचे मद संख्या न०— के दाईं ओर, यह बताने के लिए कि वह दूसरी मद कितनी विरोधी है, निशान लगाइये। जब तक आप सब 16 मदों को जाँच नहीं लेते कि कितनी विरोधी है तब तक ऐसे ही करते जाइये जैसे ऊपर बताया गया है। कोई प्रश्न हैं?

मद संख्या

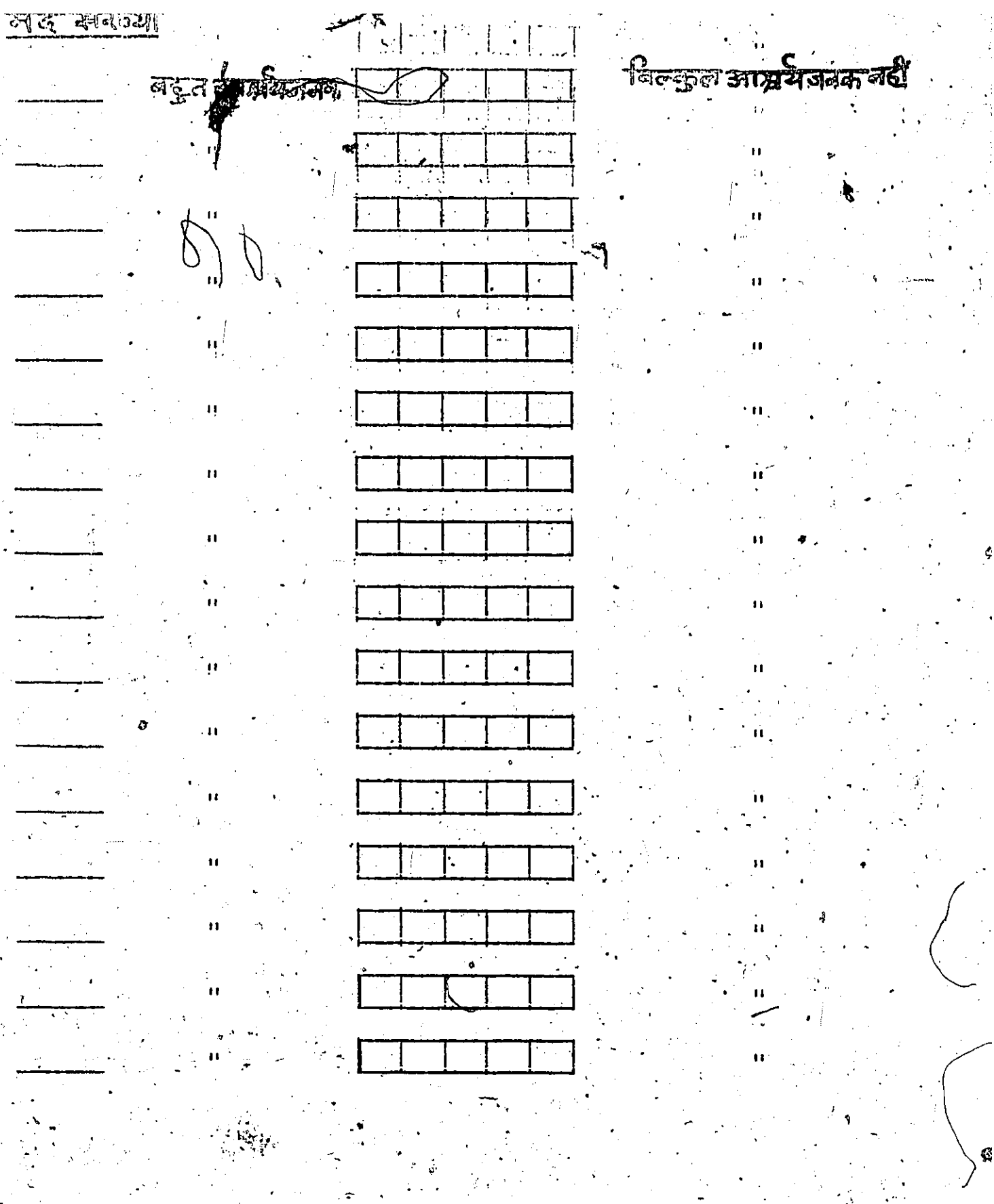
____	बहुत विरोधी	☐☐☐☐☐	बिल्कुल विरोधी नहीं
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"
____	"	☐☐☐☐☐	"

निर्णायकों को आदेश

अब आपको अन्तिम बार कुछ 16 मदों के संग्रह को आँकने के लिए कहा जाता है। इस बार प्रयत्न यह है कि प्रत्येक मद कितनी आश्चर्यजनक है। याद रखिए कि आपके पास प्रत्येक मद का गत पहले ही मद संख्या के स्थान में लिखा है। पहले की तरह ही, दोनों ओर के स्थानों में, प्रत्येक मद कितनी आश्चर्यजनक है, अंकित। कृपया अंकित स्थानों में निशान लगाइये।

मद संख्या

	बहुत आश्चर्यजनक						विल्कुल आश्चर्यजनक नहीं
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"
____	"						"


बहुत आश्चर्यजनक
बिल्कुल आश्चर्यजनक नहीं

Items Anticonforming to East Indian Attitude Norms

4

A mother on her way to work dropped off her infant child at the neighbourhood day-care centre--picking up the infant after work.

10

Several men hunted animals and killed them just for sport.

12

The couple could not afford to care for their elderly parents, so they sent them to live with other relatives.

14

Several people went to a restaurant and ordered beef steak.

4

एक माँ काम पर जाते हुए अपने शिशु को पड़ोस में
जिन में देखभाल करने वाले केन्द्र में छोड़ जाती थी और
काम के पश्चात् ले जाती थी।

10

कई आदमियों ने केवल मन-बहलाव के लिए
जानवरों का शिकार किया, और उनको मार दिया।

12

पति-पत्नि अपने वयोवृद्ध माँ बाप की देख-भाल
करने में असमर्थ थे, इसलिए उनको दूसरे रिश्तेदारों के
पास रहने को भेज दिया।

14

कई व्यक्ति रेस्तराँ गए और गोश्त मँगाया।

Items Anticonforming to East Indian Belief Norms

3

The 16-year old girl went drinking at a bar with a bunch of her friends.

7

The family has eleven kids and the mother receives $242 per month as mother's allowance.

11

The bride was looking beautiful, all dressed in white, during the marriage ceremony.

15

After they became engaged the couple agreed to premarital sex.

3

16 वर्षीय लड़की अपने मित्रों के समूह के साथ शराब-घर शराब पीने गई।

7

परिवार में 11 बच्चे हैं, और माँ को मासू-भत्ते के के प्रत्येक मास 2178 रुपये मिलते हैं।

11

विवाह के समारोह में सारे सफ़ेद वस्त्र पहने हुए दुलहिन सुन्दर लग रही थी।

15

सगाई हो जाने के पश्चात् लड़का-लड़की शादी से पहले ही मैथुन के लिए राज़ी हो गए।

Items Anticonforming to Caucasian Canadian Attitude Norms

1

The young couple dropped in unexpectedly to stay with their aunt for an entire week.

6

On her mother's birthday the married daughter did not give a present.

8

The man refused to eat steak even though he was starving.

9

The bridegroom's parents would not help pay for any of the wedding, though the bride's parents could not afford the whole amount.

1

तरुण पति-पत्नि अचानक ही मौसी के पास सारा सप्ताह रहने के लिए आ गये।

6

अपनी माँ के जन्म दिन पर विवाहित पुत्री ने उपहार नहीं दिया।

8

यद्यपि आदमी मूरखा मर रहा था, फिर भी उसने गोबांस खाने से इन्कार कर दिया।

9

यद्यपि कुलीन के माँ-बाप सारी रकम खर्च करने में असमर्थ हैं, फिर भी दूल्हे के माँ-बाप शादी के किसी खर्च में सहायता नहीं करते।

Items Anticonforming to Caucasian Canadian Belief Norms

2

When the son came home to visit his parents, he touched their feet with both hands.

5

Whenever the father-in-law entered the house, the daughter-in-law would hide her face with a long veil.

13

A cow sat in a grocery store in the middle of the city and ate potato chips.

16

As the cow passed by, men and women addressed her as 'mother'.

2

जब पुत्र घर माँ-बाप को मिलने आया तो उसने दोनों हाथों से उनके चरण स्पर्श किए।

5

जब मी सन्तुर घर में प्रवेश करता, वह एक लम्बा चूंघट निकाल लेती।

13

एक गाय शहर के मध्य में एक पन्सारी की दुकान में बैठी आलू के टुकड़े खा रही थी।

16

जैसे ही गाय पास से गुजरी पुरुष और स्त्रियों ने उसे 'माता' कह कर पुकारा।

Please complete the following items:

Sex: _____male _____female

_____Age

_____Citizenship

Year at University:

_____Preliminary

_____1st

_____2nd

_____3rd

_____4th

_____Other (Specify) _____

Which culture do you prefer?

_____Australian

_____Canadian

_____Chinese

_____East Indian

_____Middle Eastern

_____Russian

_____U.S.

How long have you lived in Canada?

_____Years

कृपया निम्नलिखित सूचना भरिए :

लिंग : _____ पुरुष _____ स्त्री

_____ आयु

_____ नागरिकता

विश्वविद्यालय में वर्ष :

_____ प्रारम्भिक

_____ प्रथम

_____ द्वितीय

_____ तृतीय

_____ चतुर्थ

_____ अन्य (उल्लेख करिए) _____

आपको कौन सी संस्कृति अधिक पसन्द है ?

_____ आस्ट्रेलियन

_____ कैनेडियन

_____ चीनी

_____ भारतीय

_____ मध्य-पूर्व

_____ रूसी

_____ अमरीकी

आप कितना समय कैनेडा में रहे हैं ?

_____ वर्ष

APPENDIX B

SUBJECTS' AMUSEMENT, HOSTILITY AND SURPRISING JUDGEMENTS BY ITEM

Amusement Judgements by East Indian (Hindi) Subjects

	(P1) Anticonformity to East Indian Norms								(P2) Anticonformity to Canadian Norms							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	3	7	11	15	4	10	12	14	2	5	13	16	1	6	8	9
1	1	1	5	1	3	1	1	1	1	3	5	1	5	5	5	1
2	1	3	1	5	1	1	1	1	5	5	5	5	3	3	5	5
3	1	5	5	1	2	5	5	1	3	5	4	5	5	5	5	5
4	5	5	5	5	5	1	4	4	5	5	5	5	1	5	5	1
5	5	4	5	5	4	5	4	4	1	5	5	4	4	5	1	4
6	5	5	4	5	1	2	3	5	1	3	4	3	3	1	1	2
7	5	3	5	5	1	2	4	4	1	1	4	1	1	1	1	1
8	5	5	5	5	1	1	5	5	1	1	5	1	1	1	1	1
9	5	5	5	1	1	1	1	5	1	1	5	1	1	1	1	1
10	1	2	1	1	4	2	3	1	5	5	1	5	2	3	5	1
11	1	2	1	1	5	1	2	1	5	3	5	4	1	5	5	1
12	4	2	4	5	2	1	5	5	1	3	1	3	1	1	1	5
13	3	5	1	3	1	1	2	5	1	3	5	3	3	1	5	1
14	5	5	5	1	4	3	3	4	1	1	2	4	3	1	3	1
15	1	5	5	1	1	1	1	1	5	5	5	5	1	1	5	1
16	4	1	1	2	5	2	2	4	1	3	1	4	1	4	1	5	5
17	1	3	1	2	3	2	1	1	5	3	2	5	3	1	1	3
18	5	1	1	1	1	1	5	1	1	5	5	5	1	5	5	5
19	1	5	2	1	3	1	1	1	5	3	1	5	1	1	2	1
20	1	5	2	2	4	2	4	2	5	1	3	1	2	2	2	2
21	5	2	3	5	3	3	2	3	1	2	5	3	4	3	3	3
22	5	1	5	1	3	1	1	3	5	2	1	1	1	3	1	1
23	1	1	3	1	5	1	1	1	5	1	1	1	3	1	1	1
4's or 5's	12	11	11	8½	7	2	9	9	10	7	15	11	5	6	10	6

Amusing Scale

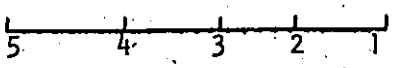
Very Amusing — Not At All Amusing

5 4 3 2 1

Amusement Judgements by East Indian (English) Subjects

	Anticonformity to East Indian Norms (P1)								Anticonformity to East Indian Norms							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	3	7	11	15	4	10	12	14	2	5	13	16	1	6	8	9
1	5	5	1	5	3	1	5	1	1	1	5	5	1	1	1	3
2	5	5	1	5	1	1	5	1	1	5	5	1	1	1	5	1
3	5	5	5	5	5	5	5	5	1	1	1	5	1	1	1	3
4	1	1	5	1	3	1	1	5	5	3	1	5	1	1	5	1
5	5	3	5	5	1	1	5	1	3	1	3	1	3	3	1	5
6	5	5	5	5	1	1	5	3	1	1	1	1	1	1	1	5
7	5	5	1	5	5	1	1	1	1	5	5	1	1	5	5	5
8	5	1	5	5	3	5	3	3	1	1	1	1	1	3	5	5
9	5	5	1	3	3	3	3	1	3	3	5	5	5	1	3	3
10	3	5	2	4	1	3	4	1	1	5	5	5	5	2	4	1
11	5	1	1	1	1	1	1	1	1	5	5	2	5	1	3	1
12	5	5	5	5	4	4	5	5	1	1	1	3	1	1	1	1
13	4	5	5	4	4	1	5	5	1	1	3	1	1	1	2	1
14	4	5	5	5	1	1	4	5	1	1	4	1	1	1	1	1
15	1	5	2	5	3	5	5	1	1	3	3	1	3	3	5	1
16	5	5	5	4	2	3	3	5	2	2	2	1	2	1	3	3
17	5	5	4	5	3	3	3	5	1	1	5	1	2	3	1	3
18	1	5	5	1	5	1	2	1	4	5	5	4	5	1	3	5
19	3.5	1	5	1	4	5	1	4	2.5	1	1	1	5	2	1	1
4's or 5's	14½	14	12	14	6	5	10	8	2½	5	9	6	5	1	6	5

Amusing Scale



Amusement Judgements by Caucasian Canadian Subjects

	Anticonformity to Canadian Norms (P1)								Anticonformity to East Indian Norms (P1)							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	2	5	13	16	1	6	8	9	3	7	11	15	4	10	12	14
1	1	2	5	4	3	2	1	2	1	2	1	3	1	4	1	1
2	5	5	1	1	1	1	5	1	5	1	1	1	5	5	3	4
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	4	1	5	3	4	4	1	5	3	4	2	5	1	1	5	1
5	1	1	5	1	1	1	5	1	3	4	4	3	1	1	5	1
6	1	2	2	2	3	1	2	1	2	1	1	1	1	1	1	1
7	4	3	4	4	2	2	2	1	3	2	4	2	3	1	3	3
8	2	2	2	3	2	1	2	1	1	1	1	1	1	1	2	1
9	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1
10	2	3	1	3	2	2	1	1	1	1	1	1	1	5	2	1
11	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	5	2	5	2	2	2	4	2	4	2	3	4	2	1	1	3
13	1	2	3	2	1	1	2	1	1	2	1	1	1	1	1	1
14	5	5	1	5	1	1	5	3	5	1	1	5	1	1	1	1
15	4	1	5	5	1	3	2	1	1	5	1	5	1	2	3	1
16	5	3	5	4	2	1	1	1	1	1	1	1	1	1	1	1
17	3	2	4	1	1	2	4	2	5	1	2	2,5	3	1	2	1
18	1	1	5	1	1	1	2	4	5	2	1	5	2	1	3	3
19	4	3	3	3	3	5	3	5	4	5	4	4	4	5	5	4
20	4	2	4	4	5	2	5	3	3	5	3	5	1	2	2	1
4's or 5's	9	2	10	6	2	2	6	3	6	5	3	7½	2	4	3	2

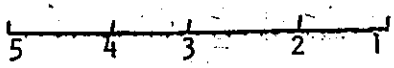
Amusing Scale

5 — Very Amusing
4
3
2
1 — Not At All Amusing

Hostility Judgements by East Indian (Hindi) Subjects

	(P1) Anticonformity to East Indian Norms								(P2) Anticonformity to Canadian Norms							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	3	7	11	15	4	10	12	14	2	5	13	16	1	6	8	9
1	3	5	1	5	1	5	5	5	1	5	3	1	5	3	1	5
2	5	5	5	5	1	5	1	5	1	1	1	1	5	5	1	5
3	5	1	5	5	1	5	5	5	1	1	1	2	1	1	1	5
4	5	1	5	5	5	5	5	5	5	1	1	1	5	1	1	5
5	5	1	5	5	1	5	5	5	1	1	5	1	5	1	5	5
6	5	2	4	5	1	3	2	5	1	1	5	3	3	1	1	1
7	5	5	4	5	1	2	5	5	1	1	5	1	1	1	1	1
8	5	4	5	4	1	1	5	1	1	1	1	1	1	1	1	1
9	5	5	5	5	1	1	1	5	1	1	5	1	1	1	1	1
10	5	2	5	4	3	5	2	5	1	1	3	1	3	2	5	5
11	5	3	5	5	1	1	4	5	5	2	1	1	3	1	1	3
12	5	1	3	5	1	5	1	5	1	5	1	3	1	2	5	4
13	5	1	1	5	1	3	4	5	1	3	3	1	3	1	1	3
14	4	5	5	1	3	2	3	2	5	1	1	5	3	3	3	1
15	3	1	1	5	5	5	5	5	1	1	1	1	5	5	5	5
16	2	5	1	2	5	5	4	5	1	1	1	1	3	1	1	2
17	5	2	5	5	2	4	3	5	1	3	2	1	3	1	1	3
18	1	1	1	1	3	5	1	1	5	5	-	5	1	2	1	5
19	5	1	4	5	3	5	5	5	1	3	3	1	5	5	3	5
20	4	1	4	3	2	1	2	4	1	2	4	2	4	2	1	4
21	1	1	3	1	1	5	3	5	1	4	4	3	3	3	4	4
22	3	3	1	3	1	5	5	3	1	5	3	3	1	3	5	5
23	5	3	1	5	1	5	5	5	1	5	5	3	1	5	5	5
4's or 5's	7	7	14	17	3	15	13	19	4	6	7	2	7	4	7	14

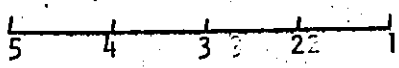
Hostile Scale



Hostility Judgements by East Indian (English) Subjects

	(P1) Anticonformity to East Indian Norms								(P2) Anticonformity to Canadian Norms							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	3	7	11	15	4	10	12	14	2	5	13	16	1	6	8	9
1	5	3	1	5	5	1	5	1	1	1	3	5	1	1	1	5
2	5	5	1	5	1	1	5	1	1	5	5	1	5	1	5	5
3	5	1	5	5	5	5	5	5	1	1	1	3	1	1	1	5
4	1	1	5	1	3	1	1	5	5	5	1	5	1	1	5	1
5	5	3	1	1	1	5	3	5	1	1	3	1	1	3	1	3
6	5	5	5	5	1	5	5	5	1	5	5	1	1	1	1	5
7	5	1	1	5	3	5	5	1	1	1	1	1	1	1	4	5
8	3	1	5	5	3	5	5	1	1	4	5	1	1	3	5	5
9	5	1	3	5	5	3	3	3	3	3	5	5	3	3	1	3
10	1	5	1	3	1	3	1	2	1	1	2	1	2	4	5	5
11	5	1	1	5	1	5	1	5	1	5	1	1	5	1	5	1
12	5	5	5	5	3	4	5	4	1	1	2	4	1	1	1	1
13	3	5	5	5	4	1	4	5	1	1	3	1	2	1	2	2
14	5	4	4	5	1	1	4	5	1	1	5	1	1	1	1	4
15	5	5	3	4	1	4	5	5	1	3	3	1	3	3	5	3
16	4	2	5	5	2	4	4	5	1	4	3	3	4	2	3	3
17	5	3	2	5	2	5	5	5	1	1	4	1	3	3	2	4
18	3	3	1	3	1	1	5	1	1	4	5	2	5	1	5	5
19	5	1	5	1	1	5	5	4	5	1	1	1	5	1	5	5
4's or 5's	14	7	9	14	4	11	14	12	2	7	7	4	5	1	9	11

Hostile Scale



Hostility Judgements by Caucasian Canadian Subjects

	(P2) Anticonformity to Canadian Norms								(P1) Anticonformity to East Indian Norms							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	2	5	13	16	1	6	8	9	3	7	11	15	4	10	12	14
1	2	2	1	1	2	1	4	1	1	3	1	1	1	3	3	2
2	1	5	1	4	5	3	3	5	1	1	1	1	4	1	5	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
4	4	4	2	1	5	5	4	5	3	4	1	1	3	5	5	1
5	2	4	1	4	3	1	5	5	1	4	1	5	3	5	1	1
6	2	5	2	2	4	5	5	5	1	3	1	1	1	5	3	1
7	3	4	3	2	3	4	2	4	1	3	1	2	2	5	4	1
8	2	2	1	2	3	1	1	4	2	2	1	1	3	5	1	1
9	1	1	1	2	2	1	1	5	1	1	1	1	1	5	5	1
10	2	3	1	3	2	2	1	1	1	1	1	1	1	5	2	1
11	3	4	1	5	3	5	5	5	5	2	1	2	5	4	3	-
12	1	2	1	3	4	3	2	4	1	1	1	1	2	5	3	1
13	4	3	2	3	4	3	3	4	3	2	1	2	4	4	2	1
14	1	3	1	1	4	4	4	5	1	1	1	1	5	1	5	1
15	5	5	2	1	3	5	5	5	5	4	1	3	5	5	4	1
16	1	5	5	1	3	4	1	3	4	3	1	1	5	5	4	1
17	4	2	4	2	1	2	4	2	3	2	3	3	1	2	2	1
18	1	3	1	3	2	3	3	3	3	3	1	2	1	2	2	1
19	2	3	1	1	3	4	2	4	2	2	1	1	1	4	2	1
20	3	5	3	3	2	4	5	3	2	1	1	1	2	3	4	2
4's or 5's	4	9	2	3	6	9	9	13	3	3	0	1	6	13	8	0

Hostile Scale

Very Hostile — Not At All Hostile

5 — 4 — 3 — 2 — 1

Surprising Judgements by East Indian (Hindi) Subjects

	(P1) Anticonformity to East Indian Norms								(P2) Anticonformity to Canadian Norms							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	3	7	11	15	4	10	12	14	2	5	13	16	1	6	8	9
1	3	5	1	5	3	5	5	1	1	5	3	1	5	3	1	5
2	5	5	5	5	1	1	5	5	1	1	1	1	5	5	5	5
3	5	5	5	5	1	5	5	5	1	1	4	2	1	1	2	5
4	5	5	5	5	5	1	1	5	5	5	5	1	1	5	5	1
5	5	1	5	1	1	1	1	1	1	1	1	1	1	5	1	1
6	5	5	4	5	1	1	4	5	1	1	5	3	3	1	1	1
7	5	5	4	5	1	1	3	4	1	1	5	1	1	1	1	1
8	4	5	5	5	1	1	5	5	1	1	5	1	1	1	1	1
9	5	5	5	5	1	1	5	5	1	1	5	1	1	1	1	1
10	5	2	5	4	3	2	4	5	1	1	5	1	3	3	1	5
11	4	1	5	5	1	1	3	5	1	1	5	4	1	2	1	2
12	5	1	3	5	2	1	5	5	1	5	1	3	1	3	5	5
13	5	5	1	5	1	1	3	5	1	3	5	1	3	2	1	3
14	4	5	5	1	3	3	3	3	1	1	1	1	3	3	3	2
15	5	5	1	5	5	5	5	5	1	1	1	1	5	5	1	1
16	5	5	5	2	5	3	4	5	1	3	4	1	4	1	5	3
17	5	2	5	4	2	2	3	4	1	2	2	1	3	2	1	3
18	5	5	1	1	1	5	1	1	1	5	5	5	5	1	1	5
19	5	4	3	4	1	1	4	4	1	3	3	1	4	3	2	2
20	2	1	3	2	1	1	1	2	1	2	1	2	2	2	1	2
21	5	4	3	5	1	5	3	5	1	1	2	5	3	1	1	2
22	3	5	3	4	1	1	5	3	2	1	1	2	2	3	4	2
23	5	3	1	5	1	5	5	1	1	5	5	5	1	3	5	5
4's or 5's	20	16	13	18	3	6	13	16	1	5	12	4	6	4	6	7

Surprising Scale

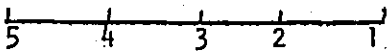
Very Surprising — Not At All Surprising

5 4 3 2 1

Surprising Judgements by East Indian (English) Subjects

	(P1) Anticonformity to East Indian Norms								(P2) Anticonformity to Canadian Norms							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	3	7	11	15	4	10	12	14	2	5	13	16	1	6	8	9
1	5	5	1	5	5	1	5	1	1	1	1	3	1	1	1	5
2	5	5	1	5	1	1	5	1	1	5	5	1	5	1	5	5
3	5	5	5	5	5	1	5	5	1	1	1	1	1	1	1	1
4	5	1	1	5	5	5	5	1	1	1	5	1	5	5	1	5
5	5	3	1	3	1	3	1	1	1	1	3	1	3	5	1	1
6	1	5	1	5	1	1	5	1	1	1	5	1	1	1	1	5
7	5	4	1	5	2	3	5	2	1	1	5	1	2	2	5	5
8	4	2	4	5	3	2	4	1	1	2	2	1	1	2	5	2
9	5	3	3	5	5	3	3	3	3	3	5	5	3	3	3	3,5
10	2	5	2	3	1	3	5	2	1	5	5	5	5	4	4	1
11	1	1	1	5	1	5	1	5	1	1	1	1	1	1	1	1
12	5	5	5	5	3	3	5	3	1	1	1	2	1	2	2	1
13	3	5	5	4	4	1	5	5	1	1	3	1	2	1	2	2
14	5	4	4	5	1	1	4	5	1	1	4	1	1	1	1	1
15	5	5	3	4	1	5	5	4	1	3	3	1	3	3	5	3
16	5	4	5	5	4	4	4	4	2	2	2	2	3	2	4	3
17	5	4	3	5	3	2	5	5	1	1	5	2	2	3	1	3
18	5	5	3	1	2	5	5	4	1	1	5	3	4	1	2	4
19	1	5	1	1	1	5	5	1	1	1	1	1	1	1	5	1
4's or 5's	14	14	6	15	6	6	16	8	0	2	9	2	4	3	7	6½

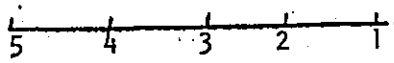
Surprising Scale



Surprising Judgements by Caucasian Canadian Subjects

	(P2) Anticonformity to Canadian Norms								(P1) Anticonformity to East Indian Norms							
Item No.	Belief				Attitude				Belief				Attitude			
Subject No.	2	5	13	16	1	6	8	9	3	7	11	15	4	10	12	14
1	3	3	5	5	5	5	2	3	4	1	1	1	1	1	2	1
2	5	5	5	2	5	5	5	5	1	5	1	1	1	1	2	3
3	1	3	5	3	1	1	3	1	1	1	1	1	1	1	1	1
4	5	4	5	5	4	5	4	5	1	3	1	5	1	1	2	2
5	5	1	1	4	4	5	5	5	1	5	1	1	3	5	1	5
6	5	5	5	5	5	5	5	5	1	3	1	1	2	1	2	1
7	5	4	5	4	3	4	5	4	2	2	1	1	2	2	3	1
8	5	2	4	3	4	3	4	3	1	1	1	1	1	5	2	1
9	5	5	5	5	3	5	5	1	1	4	1	4	1	1	1	1
10	5	3	5	5	3	4	5	5	1	1	1	1	1	2	2	1
11	4	4	4	3	4	3	5	-	4	5	5	3	4	4	4	3
12	4	4	5	4	4	5	4	4	2	1	1	1	2	1	3	4
13	4	5	5	5	5	5	5	4	2	2	2	2	2	2	3	1
14	5	5	5	5	1	2	5	5	1	1	1	1	1	1	1	1
15	5	5	5	3	4	5	1	5	5	5	1	1	2	1	5	2
16	5	5	5	5	3	5	5	2	1	3	1	2	2	2	3	1
17	5	4	5	4	5	3	5	2	1	4	1	5	1	1	1	2
18	5	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1
19	3	4	4	3	3	3	3	4	2	2	1	1	2	2	3	1
20	4	4	5	5	5	4	5	5	1	2	1	5	2	3	3	3
4's or 5's	17	14	19	13	12	13	15	12	3	6	1	4	1	3	2	2

Surprising Scale



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