This paper proposes and tests a theory of catharsis of repressed emotion. The key concept in this theory is the balance of attention, a concept that is shown to be equivalent to aesthetic distance. Laughter and other emotional releases occur when one's attention is equally divided between a distressful past event and the safe present. In the audience for a drama, this situation occurs most frequently when the audience knows something that one or more of the characters don't know. To test this theory, a tape was obtained of the audience response to a play (Twelfth Night). There were 281 instances of audience laughter. To predict these instances, the script was independently coded for discrepant awareness. For example, the audience knows that the heroine, Viola, is disguised as a man. Every line in the script in which she is referred to as a man by a character who thinks she is a man is rated as an instance of discrepant awareness. Then the instances of laughter and of discrepant awareness are tabulated jointly. A moderately strong correlation is found, providing support for the theory of catharsis. The thesis of this article is that a theory of catharsis will help to predict the occurrence of several kinds of emotional response of which one is laughter. (Author/CJ)
TESTING A THEORY OF LAUGHTER\(^1\)

Thomas J. Scheff

University of California, Santa Barbara

Paper presented at the Annual Meeting of the American Sociological Association, San Francisco, California, August 1975

\(^1\)The research reported here was done with the assistance of Salvatore Salerno and Stephen Scheele.
TESTING A THEORY OF LAUGHTER

Thomas J. Scheff, University of California, Santa Barbara

This paper proposes and tests a theory of catharsis of repressed emotion. The key concept in this theory is the balance of attention, a concept that is shown to be equivalent to aesthetic distance. Laughter and other emotional releases occur when one's attention is equally divided between a distressful past event and the safe present. In the audience for a drama, this situation occurs most frequently when the audience knows something that one or more of the characters don't know. The attention of the audience is divided in this way: knowing something that the character doesn't, the audience identifies with that character, and so participates in his distress, but also acts as an outside observer. The character's awareness is discrepant with respect to the audience.

To test this theory, a tape was obtained of the audience response to a play (Twelfth Night). There were 281 instances of audience laughter. To predict these instances, the script was independently coded for discrepant awareness. For example, the audience knows that the heroine, Viola, is disguised as a man. Every line in the script in which she is referred to as a man by a character who thinks she is a man is rated as an instance of discrepant awareness. When the instances of laughter and of discrepant awareness are tabulated jointly, a moderately strong correlation is found, providing support for the theory of catharsis.

The thesis of this article is that a theory of catharsis will help to predict the occurrence of several kinds of emotional response, of which one is laughter. The discussion that follows will have three parts. First, I will define catharsis, and describe the conditions under which it usually
occurs. Secondly, I will outline the relationship between certain aspects of a social situation, particularly the kinds of awareness it generates in a social group, and catharsis. Finally, I will test these ideas by applying them to the laughter of an audience in a theatre. The first task is to define catharsis.

The earliest reference to catharsis is found in Aristotle. In the Poetics, he proposed that the purpose of tragedy is to purge the audience of pity and terror. He believed that catharsis had extremely important consequences for the audience, as individuals, and as members of a community. His discussion is brief and cryptic, however. He does not define catharsis, nor describe very clearly the conditions under which it takes place, and the specific consequences it may have.

In his analysis of the psychological response to drama, Freud is somewhat more explicit. He argues that dramatic scenes move audiences because they touch upon repressed emotion. The scenes need not be exactly equivalent to the actual historical experiences of the members of the audience. There are certain human experiences, Freud thought, which are universal. Scenes of separation and loss can be expected to restimulate repressed grief, just as scenes depicting danger to life will resonate with the repressed fear in most members of the audience. In Freud's analysis, however, catharsis is not specifically defined, nor is there explicit discussion of the mechanisms of discharge.

1William K. Wimsatt, Jr., and Cleanth Brooks, Literary Criticism, New York: Random House, 1957, Chapter II.

A Theory of Catharsis

In this paper, I will use a contemporary theory of catharsis as a framework for analysis, the theory of Re-evaluation Therapy. This theory is consonant with the ideas of Aristotle and Freud, but considerably more explicit about what constitutes catharsis, the conditions under which it may occur, and the consequences when it does, and when it does not, occur.

According to Re-evaluation theory, there are four basic distressful emotions: grief, fear, embarrassment, and anger. These emotions are physical states of tension in the body which are produced by stress or hurt. For example, if a stranger suddenly slaps your face, there is not only physical, but also emotional distress, a mixture, perhaps of grief, fear, embarrassment, and anger. The fact that these emotions are tension states can be most clearly seen in the case of fear. The symptoms of acute fear, pallor, chill in the extremities, and rapid and shallow breathing, are caused by tension: constriction in the blood vessels, which interferes with the

---


4 There is close correspondence between these four categories and the emotions suggested in Aristotle's analysis. His concept of terror corresponds to fear, and his concept of comedy, to laughter. Aristotle's conception of pity seems to include elements of both anger and grief:

"(the association of pity) with undeserved suffering implies perhaps some sense of outrage.

Since pity, especially in tragedy, is often pity for the dead or the bereaved, it is (also) akin to the shared or public lamentation which is part of life in small and closely knit communities. (There is a suggestion) that the audience luxuriated in community sorrow, 'surrendering itself' to lamentation and taking part in the mourning along with actors and chorus." D. W. Lucas, in his commentary on the Poetics, Clarendon Press, Oxford, 1968, p. 273; a discussion of Aristotle's conception of laughter as catharsis may be found in Lane Cooper, An Aristotelian Theory of Comedy, New York: Harcourt Brace, 1922.
circulation of the blood, causing pallor and chill in the hands and feet, and constriction in the bronchi, interfering with oxygen intake, leading to rapid shallow breathing.

The theory further specifies that in the absence of interference, these tension states will be spontaneously discharged by convulsive, involuntary bodily processes, whose external manifestations are weeping, for grief, shivering and cold perspiration, for fear, spontaneous laughter, for embarrassment or anger, and "storming" (rapid, forceful movement and vocalization) with hot perspiration, also for anger. This theory provides, therefore, a detailed and explicit definition of catharsis. The discharge of the distressful emotions (catharsis) is defined as largely internal, involuntary processes, whose invariant external indicators are weeping, shivering and cold sweating, spontaneous laughter, or storming with hot sweating.

Note that the theory makes a sharp distinction between emotion as distress, and emotion as discharge, which is not ordinarily made. We are accustomed to lumping together, for example, the pallor, chill and panting of the distress of fear, with the shivering and cold sweating of the discharge of fear. The theory insists that emotional distress and discharge are two different, and in fact, opposite processes. The signs of emotional distress are symptomatic of increasing muscular and visceral tension, just as the signs of emotional discharge are indicative of the relaxation of tension. Our very language seems at fault, since the nouns which we use to designate emotions lead us to think in terms of states rather than processes, as well as not possessing suitable terms to differentiate between the distress of grief, fear, embarrassment and anger, and their discharge. Perhaps a new set of terms which are all verbs is needed: grieving, fearing, embarrassing,
angering, for the distress side of the emotions, and de-grieving, de-fearing, de-embarrassing, de-angering, for the discharge side.

If there is no interference, the discharge process will continue until all of the tension is relieved. An infant who is briefly separated from its mother in a supermarket may, when his mother returns, go through all of these processes in rapid succession or even simultaneously, crying, shaking and laughing, and finally, babbling happily. This is assuming that the mother will allow it. Many mothers, however, will usually not tolerate the noise and inconvenience. The infant may be coerced into stopping. It would seem, in fact, that in modern societies, for most people, most of the time, there is considerable interference with the discharge process. Children, especially males, are not allowed to cry until they are finished, nor are they allowed, especially females, to express all of the anger they feel. Interference by parents ("If you don't stop crying, I'll give you something to cry about"), teachers ("Be a big boy") and peers (Cry, baby; cry!) is more or less continuous and systematic. In the terms used by Tomkins, the socialization of emotional discharge, e.g., crying, is usually by punishment rather than reward. 5

Given the fact that the person can usually expect his emotional discharge to be met with punishment, an almost universal strategy is to learn to interfere with one's own discharge: one learns ways to avoid expressing emotional distress. The boy who is hurt on the playground will try to hold in his

---

5 Tomkins defines the socialization of crying as punitive when the parent "punishes and tries to suppress the crying of the child," and as reward when the parent "tries to reduce the crying of the child by removing the source and also by further rewarding the child with sympathy..." Silvan S. Tomkins, "Stress-anguish Dynamics: The Adult Consequences of the Socialization of Crying," Chapter 15 in Affect, Imagery, Consciousness, Vol. 2, New York: Springer, 1963.
crying until it is safe, with his mother or in his room. What usually happens, however, is that the techniques of controlling discharge are overlearned—the boy seemingly forgets how to cry, the girl to express anger, except under rare, extreme provocation.

Given the more or less continuous interferences with discharge, both by others and by one's own learned reflexes, most individuals accumulate massive amounts of repressed emotion, bodily tension which is always present, but usually not recognized or acknowledged. We would expect, therefore, that most members of an audience for a drama would come to the theatre with a large reservoir of repressed emotion which could be discharged if the situation in the theatre is conducive.

The theory specifies the characteristics of the situation in which repressed emotion can be discharged. The situation is referred to as the "balance of attention," where one's attention is more or less evenly divided between one's distress, which is usually connected with past events, on the one hand, and, on the other, the realization that one is actually safe and in present time. The most common path to a balance of attention between past distress and the safe present is achieved in the counseling situation, where the client, while remembering and recounting distressful events, is, at the same time, subtly and simultaneously taking the role of the counselor, and therefore seeing his own distress from the outside, as it were, at the same time that he is feeling it from the inside. When the balance of attention is achieved, the client is both participant in, and observer, of his own distress.

Under these conditions, the repressed emotion ceases to be too overwhelming to counteract; the client becomes sufficiently aware of it to feel it and to discharge it.

Deviation from the point of balance usually keeps discharge from occurring, or stops discharge if it has started. If most of one's attention is absorbed by the distress, the distressful event is simply re-lived, as if it were happening again. Just as one was unable to discharge the distressful emotion in the original event, so one is unable to discharge it in the event as re-lived. On the other hand, if most of one's attention is in the safe present, the repressed emotion is not sufficiently felt, and again, no discharge occurs. At the balance point, one is both re-living the event, and therefore feeling the emotions associated with it, but, at the same time, observing the distressful event from the safety of the present.

The concept of the balance of attention is the exact psychological equivalent of the concept of "esthetic distance" in dramatic criticism. Having too much attention in the distressful event corresponds to "under-distancing" in esthetic terms, and having too little attention in the distressful event corresponds to "over-distancing." Bullough, for example, argues that a work of art may be "over-distanced" or "under-distanced." Brecht argued that alienation in the theatre is a necessary counterweight to engagement. Maynard Mack has written of the balance of engagement and detachment in Shakespearean drama, and Kenneth Clark, finally, in his discussion of visual art, has written of the need for "esthetic distance" in order to appreciate fully the work of art.


of Titian, has suggested that such a balance is the hallmark of all art:

"...he could maintain that balance between intense participation and absolute detachment which distinguishes art from all other human activity." 9

From a scientific point of view, the theory suggested here is unproven. There have been several studies whose results support the theory, but there are also several whose results fail to support it. The research findings, therefore, are contradictory. There is also a further problem connected with most of these studies, in that their relevance to the theory presented here is not completely clear, both for the studies which support and those which fail to support the theory. To illustrate this point, a brief discussion of the limitations of two studies, one with positive, the other with negative findings, will follow.

The Karle et al. study demonstrates that Primal Therapy lowers physiological indicators of tension such as pulse rate, blood pressure and body temperature. 10 This finding supports the theory of catharsis in a general way, but it is not sufficiently precise to test the specific hypotheses contained in the theory. The theory of catharsis suggests that it is the discharge of emotion signalled by crying, shaking, sweating, and laughing that produces the lowering of bodily tension, but the Karle study does not demonstrate that it is this component of the therapy, and not some other, which causes the change.

9 Cited in Mack, op. cit.
The significance of Berkowitz's negative findings, which are probably the most widely known scientific studies of catharsis, are still less clear. Berkowitz's studies, and the other experiments similar to them, are not actually studies of internal bodily processes signalled by crying, laughing, and so on, but of overt aggressive behavior. Berkowitz and his colleagues seem to assume that anger catharsis inevitably accompanies aggressive behavior. In the light of the theory outlined here, this assumption seems quite dubious, in that involvement in overt aggressive behavior would probably lead to a loss of balance of attention. The aggressing actor is not apt to have part of his attention free of distress, observing himself feeling the anger. These studies of aggressing individuals are a far cry from the images of catharsis held by Aristotle, who was considering members of an audience vicariously participating in the emotions of actors on a stage, and Freud, whose subjects were patients recounting incidents from their lives in the safety of his office.

Furthermore, none of the prior studies of catharsis take any steps toward providing a balance of attention, or even bear evidence of awareness of such a possibility, with one exception. This is a study of reports on successful psychotherapy which were traceable to events which occurred within therapeutic sessions, by Symonds. He found that in the great majority of cases (59 out of 68) success followed emotional discharge. Symonds observes, on the basis of the cases he studied, that a certain kind of situation, which closely resembles the balance of attention, appears to be


necessary before successful therapeutic discharge can occur: "Before abreaction (massive emotional discharge) can take place, the client must perceive the situation in a different way than he is accustomed to perceiving it, that is, as non-threatening." This observation that the client must see that the relationship with the therapist is safe before he can discharge, seems similar to the requirement of a balance of attention, in which approximately half of the client's attention is free of distress, aware that he is safe and in the present. The one study which seems to make allowance for the fundamental principle of the theory of catharsis, provides support for the theory. Needless to say the positive findings of a single study are not sufficient to demonstrate the truth of a theory.

Identification and Awareness in an Audience

Suppose a playwright wished to create a play that would give the audience ample opportunity for discharge of distressful emotion, how would he use the theory outlined here? The theory suggests that he is faced with two major tasks: first, providing scenes which touch upon the repressed emotions that are shared by most members of the audience, and second, to construct the scenes in such a way that the audience is sufficiently involved so that they can feel the repressed emotions, but not so involved that they are overwhelmed by them. In terms of the theory, the play must create conditions which lead to the re-stimulation of repressed emotion in the audience, under a balance of attention, allowing them to be both participants in, and observers of, the dramatic scenes.

With respect to the first task, of creating scenes which touch upon collective emotion, the theory is useful in only a very general way. It specifies the four basic distressful emotions as grief, fear, embarrassment, and anger,
which suggests the need for scenes of loss and separation, to touch upon
repressed grief, danger to life and limb, for fear, shame and humiliation, to
produce embarrassment, and scenes depicting injustice or inequity, to arouse
anger. With respect to the first task, the theory is not any more specific than
this. To be successful in arousing repressed emotion, the playwright must
be in touch with the particular emotional idiom of his culture and milieu,
perhaps drawing on his intuitive knowledge of his own emotions.

In regard to the second task, of creating a balance of attention, the
theory is much more specific. It suggests the need for controlled identifi-
cation of the audience with the major characters, identification that is
sufficiently intense so that the audience participates with the characters
in the emotion-arousing scenes vicariously, but not so intense that the
members of the audience forget where they are, relive the distressful ex-
periences, and are unable to discharge. There are a number of ways that
playwrights obtain identification with their characters, some obvious, others
not so obvious.

One conventional way of getting audience identification with a character
is by making him or her an embodiment of the ideal values of the audience.
The hero or heroine who is physically attractive, courageous and intelligent
will be identified with by the audience, to the extent that it holds these
values. A second tactic is the use of characters who are similar to the
members of the audience. For an audience of children, child characters, for
an audience of men, male characters, and so on. Although both of these tactics
are useful, they have severe limitations. There is some conflict between the
first and the second, since if a character is to clearly be an embodiment of
ideal values, he or she may seem stilted and artificial, too unlike the
members of the audience, and not be identified with. On the other hand, if
the characters are too much like the members of the audience, the audience
may find them to be lusterless, and again fail to identify with them. Further-
more, the use of ideal values and of similarity to create identification is
selective of possible audiences. Since audiences differ in composition and
in what they value, dramas will lack universal appeal unless they use devices
in addition to value and similarity to create identification.

There is one dramatic device for creating identification between audience
and characters which has universal applicability, since it is based upon
processes that occur in all human interaction. The device may be termed
awareness control, and the universal human processes on which it is based
are the processes of social inclusion and exclusion. The sharing of private
information between members of a group promotes a strong primitive sense of
inclusion, of belonging, and therefore of identification, between the members,
just as the withholding of this information creates a strong sense of exclu-
sion among those from whom the information is withheld. The pressure toward
identification is probably strongest, almost irresistible, when inclusion and
exclusion are occurring simultaneously and visibly, for the persons who are
being included. The sight of others being excluded, as he is being included,
seems to heighten the included person's sense of belonging to, and of identi-
fication with, the group. But this is exactly the situation that occurs
almost continuously in dramas of the cathartic type, with the audience being
included in shared awareness with one or more of the characters, while one
or more of the other characters are being excluded. The effects of this device
are subtle but extraordinarily powerful.

Some of the effects of awareness control have been noted in dramatic
criticism. Wayne Booth has made an extensive contribution with his study of the technique he calls "sympathy through the use of inside views."13 His work in this area can be illustrated by a passage from his analysis of Jane Austen's novel Emma:

"By showing most of the story through Emma's eyes, the author insures that we shall travel with Emma rather than stand against her. It is not simply that Emma provides, in the unimpeachable evidence of her own conscience, proof that she has many redeeming qualities that do not appear on the surface; such evidence could be given with authorial commentary, though perhaps not with such force and conviction. Much more important, the sustained inside view leads the reader to hope for good fortune for the character with whom he travels, quite independently of the qualities revealed."14

This passage implies, quite correctly, I think, that the more one shares awareness with another, other things being equal, the more one identifies with the other, both in the sense of sympathy, which Booth stresses, and also in the sense that is more important here, of more readily taking the point of view of the other, of seeing things, if only momentarily, from his or her vantage point. The proviso "quite independently of the qualities revealed," at the end of the passage by Booth, is quite important for our purposes, since it suggests that shared awareness encourages identification, independently of ideal values and of likeness. As we shall see in the discussion of villains, below, this device allows the play to produce some identification with all the major characters, including those who are utterly unlike, and whose values are despicable to the members of the audience.

This is not to say that shared awareness can overrule or replace other sources of identification. It offers the playwright a device independent of the


14 Booth, op. cit., pp. 245-246.
plot line and the characteristics of the audience, with which he can increase or decrease audience identification with characters who are likely to attract too little identification (villains, for example), and decrease, through exclusion, identification with characters who are likely to receive too much (tragic heroes, for example) so that the audience will not lose the balance of attention.

In other dramatic criticism, virtually all discussions of the concept of "dramatic irony" involves some acknowledgment of the effects of awareness control, albeit, in most cases, quite indirectly. Some critics see awareness control as tawdry and mechanical:

Manufacture a misunderstanding and let the audience in on it is a cheap but infallible recipe for making a play.15

A more appreciative position is taken by Bertrand Evans, who has used the concept of discrepant awareness as the focal point for his analysis of Shakespeare's comedies and romances.16 Like me, he sees awareness control as one of the fundamental bases of the appeal and power of drama.

The link between awareness control and catharsis, however, is missing from prior discussions of audience awareness. The basic point I wish to make in this essay is that control of the amount and kind of awareness that the audience shares with each of the characters provides the playwright with a finely graded means of assuring balance of attention in the audience, and therefore the best possible chances for catharsis. For those characters who undergo distressful experiences similar to those which have occurred for members of the audience, control of the degree of shared awareness can produce partial identification, where the audience takes the role of the

character, yet is conscious of its own point of view, at the same time. With respect to these characters in these scenes, the audience can achieve a balance of attention.

There is a slightly different way of considering the balance of attention which is quite applicable to dramatic situations. In an area of emotional distress, if one's attention is equally divided between two contradictory viewpoints, emotional discharge is likely to occur. This conception corresponds closely to Koestler’s theory of laughter in *The Act of Creation*. According to Koestler, we laugh at a pun because it surprises us with two contradictory meanings of a word. Ordinarily, he says, we are virtually enslaved to each of the separate meanings of the word, and unaware of the conflict. The pun or joke is a situation which brings the conflict to awareness, and, for a moment, we are liberated from blind adherence to arbitrary meanings through discharge, e.g., laughter. As in Re-evaluation theory, Koestler believes that laughing and crying remove the blocks to creativity.

For an example of this effect, I will use a scene in *The Merry Wives* where Ford returns to his house the second time, certain he will catch Falstaff with his wife. The first time, Falstaff escaped in a basket of laundry. This time, he has disguised himself as a woman. At the moment when Ford comes to the door, his wife sends her servants out the door with the laundry basket. The audience knows that Falstaff is not in the basket. The audience also knows, however, that Ford will think that Falstaff is in the basket. Ford asks the servants what is in the basket. They reply that

it is laundry. In the one performance I saw, when Ford shouts for them to put down the basket, the audience roars with laughter. They continued to laugh as Ford threw item after item of laundry out of the basket. In our analysis, we would say that laughter occurs because the attention of the audience is nicely balanced between two exactly contradictory expectations. They know that Falstaff is not in the basket, but they identify partially with Ford, who has every right to expect Falstaff to be in the basket. Identifying (partially) with a character caught in an embarrassing situation, the audience discharges some of the embarrassment from earlier embarrassing episodes in their own lives through laughter, since there is a balance of attention.

The connection between awareness control and catharsis for an entire drama can be seen by briefly examining the plot of a simple comedy like Shakespeare's Comedy of Errors. The plot of this play, like many comedies, is based solely on mistaken identities, in this case between twin brothers and between their twin servants. There is a series of misunderstandings by parents, friends, lovers and servants. Audiences usually laugh as each of the misunderstandings occurs, because, unlike the characters, they know the source of the confusion. Suppose, however, that for a naive audience, the play was produced without the introductory passage which explains that there are two sets of twins. The production would probably result in no laughter at all. The audience would be as confused as the characters by the misunderstandings. The play, shorn only of one bit of inside information, would unfold in a silent theatre.

In the Comedy of Errors, awareness control is based solely on coincidence, the identical appearances of twins. In other plays, many additional
devices are used, such as asides and soliloquies, aside are other forms of misrepresentation (such as lying) and the practice of having characters or the audience eavesdrop on others. A further device is a character's supposed use of supernatural power. Oberon, in *A Midsummer Night's Dream*, and Prospero, in *The Tempest*, who employ magic, are represented as invisible to other characters, but not to the audience, creating awareness control.

In order to understand the fine structure of the link between awareness control and catharsis, it is necessary to discuss the extent to which the audience shares awareness with a character in a play. The starting place for this task is Evan's discussion of "discrepant awareness."

Discrepant awareness is the basic concept which Evans uses in his analysis. The scene from *The Merry Wives* discussed above provides an example of its application. Ford's awareness is discrepant with respect to the audience, since the audience knows something that he doesn't know, that Falstaff is not in the basket. For Evans, discrepant awareness is a fundamental principle of Shakespearian, and indeed, all classical drama.

The concept of discrepant awareness brings to mind Glaser and Strauss' analysis of awareness contexts. The example they use concerns the possible dispositions of awareness between a nurse and a dying patient. If both the nurse and patient are aware that the patient is dying, and both acknowledge this awareness, the situation is referred to as one of "open awareness." If both are aware, but neither acknowledges his awareness to the other, the situation is referred to as one of "pretense." If one is aware, but not the other, the situation is called one of "closed awareness." Finally, if one is

aware and other not, but suspects, the situation is referred to as one of a "suspicion awareness" context. The concept of discrepant awareness would appear to correspond exactly to Glaser and Strauss' category of a closed awareness context.

Method

To test the relationship between discrepant awareness and laughter predicted by the theory, a tape of a dramatic performance was obtained which included both the spoken lines of the actors and the sounds of laughter from the audience. The performance was the Twelfth Night produced at the Ashland Shakespeare Festival during the summer of 1974.

My assistant and I listened to the tape repeatedly until we had noted every occurrence of audience laughter. We located each instance of laughter on a copy of the script. Altogether there were 281 lines of script in which laughter occurred during this particular performance.

A second assistant coded occurrences of discrepant awareness independently of the coding of laughter, on another copy of the script. There are a large number of issues in this play about which the audience is better informed than one or more of the characters. The most frequently occurring issue concerns the heroine's disguise as a man. For almost the entire play, all of the major characters consider her to be a man. Only the audience, and a few minor characters, know her true identity. The plot is such, however, that her sexual identity is continually referred to in the script. Orsino, whom she loves, thinking her a man, employs her as his ambassador to the woman he loves. This woman, Olivia, also thinking her a man, falls in love with her. In each line of the script that Orsino or Olivia refers to Viola as a man,
we code; it as an instance of discrepant awareness.

Another major issue concerns the plot against Malvolio, Olivia's steward, who aspires to be her master. Toby and Maria forge a letter in which Olivia declares her love for Malvolio. They then eavesdrop on him during a long scene in which he discovers the letter, reads it aloud to himself, and congratulates himself on his good fortune, much to the amusement of Toby, Maria, and the audience, whose awareness is superior to Malvolio's. The scene in which Malvolio approaches Olivia, who is oblivious of the whole plot, with the assumption that she has written the letter to him, gives rise to a large number of instances of discrepant awareness in the script. At the same time that the awareness of Olivia and Malvolio is discrepant with respect to the audience, the audience shares awareness with Toby and Maria, who are present for this scene. The complex structure of discrepant and shared awareness in this scene gives rise to a large number of instances of discrepant awareness in the script.

In addition to these two issues, there are a large number of lesser issues about which there are instances of discrepant awareness in the script. For example, there are several instances in which Andrew praises himself for his learning, courage, skill as a dancer, and his handsome appearance. The audience, however, has been given to know that Andrew is ignorant, cowardly, awkward, and absurd in appearance, giving rise to discrepant awareness. The issue of Andrew's skill as a dancer and appearance poses a special problem for our analysis of discrepant awareness, since discrepant awareness in this case depends upon visual occurrences, such as Andrew's display of faulty dance steps, and his absurd costume and figure, which do not appear in the script. We will discuss the problem of visual discrepant
awareness at the end of this paper. In our coding of the script itself, we found 236 lines in which discrepant awareness occurred. There was no discrepant awareness in 2257 lines, the great bulk of the script.

If we tabulate the joint occurrence of laughter and discrepant awareness, the results are as follows:

| Laughter | 
| --- | --- |
| Yes | No |
| --- | --- | --- | --- |
| Discrepant awareness | 111 (47%) | 125 (53%) | 236 | 100% |
| No | 170 (67%) | 2187 (93%) | 2357 | 100% |

From the inspection of this table, it can be seen that there is a moderately strong association between discrepant awareness and laughter. Laughter occurs in 47% (cell A) of the lines where there is discrepant awareness, but in only 7% (cell C) of the lines where there is no discrepant awareness. The theory predicts the occurrence of episodes of laughter moderately well.

On the one hand, the association is not perfect; only 111 out of 281 episodes are predicted by the theory. On the other hand, as far as I know, this is the only attempt to systematically predict laughter. Prior theories are either anecdotal (e.g., Freud, Bergson, Koestler) or descriptive (for example, see the studies reviewed by Mary Kay Rothbart, "Laughter in
Young Children.19 The generalization that Rothbart makes on the basis of the descriptive studies she reviews corresponds very closely to our formulation of the relationship between catharsis and balance of attention: "...it is proposed that laughter occurs after conditions of heightened tension or arousal when at the same time there is a judgment that the situation is safe or inconsequential."

The theory of catharsis is supported by the frequent joint occurrence of discrepant awareness and laughter in this data. However, the predicted relationship is far from complete. The next problem is to try to explain the instances in which the predicted relationships fail to occur, that is, when there is laughter without discrepant awareness, and discrepant awareness without laughter, so that a more sophisticated investigation can be conducted in the future.

The first and simpler investigation involves accounting for episodes of laughter that occur in cell C of the above table. Most of the 170 episodes, I would guess, occurred in lines in which there was discrepant awareness of a visual, rather than a verbal, kind. When I viewed the performance of Twelfth Night, I estimated that perhaps a third of the laughter was responding to visual, rather than to verbal, discrepant awareness. If this were the case, an analysis which included visual as well as verbal instances might account for half of the 170 episodes in cell C, thus improving the analysis considerably. For this purpose, I wish to tape-record the performance of a new play, and also have two observers in the audience to record instances of visual discrepant awareness in the course of the play. For this purpose, I may use a film so that repeated playings can be used, in case inter-rater reliability is too low.

The second phase of the investigation involves cell B of the above table -- the 125 episodes in which there was discrepant awareness but no laughter. Accounting for these events is a more formidable task than the project above. The theory of catharsis indicates that laughter is only one of several emotional responses possible to discrepant awareness. The others are grief, anger, and fear. Monitoring these audience responses is much more difficult than laughter. In the projected research, I would want to explore the feasibility of monitoring physiological responses in a sample of the members of an audience.

The monitoring of a fairly large sample of members of an audience has the potential of solving a difficult problem in the analysis of effects of catharsis. It is difficult to document the effects of individual cathartic reactions, such as laughter, because they are relatively rare, have very slight, even though cumulative physiological effects, and are subject, as Lacey and Lacey have shown, to enormous individual variations in response styles. Massive cumulative effects have been shown. However, this type of study does not demonstrate what the changes are caused by, that is, the changes could have been caused by something other than catharsis during the course of therapy. The dilemma is that studies which show the specific effects of single events of catharsis, such as laughter or crying, usually do not show change, and studies of cumulative effects, which do show changes, don't document that it is the catharsis, rather than some other effects of therapy, that cause the change. The monitoring of a large sample of an audience, say a sample of a hundred persons, who are laughing during a comic

---

20 Karle, et al., op. cit.
drama, has the potential of resolving this dilemma, since the effects of repeated laughter during the course of a two-hour comedy may be sufficiently large, on the average, in a large sample of persons, to register physiological changes.
References


