But are You Really Happy?:

The Negativity Effect in the Inference of Happiness and Unhappiness

Hyunjin Song and Oscar Ybarra

University of Michigan

Contact: Hyunjin Song (hyunjins@umich.edu, 734-717-8757)

3236 East hall, 530 Church St. Ann Arbor, MI, 48104

Abstract

This research examined whether people make correspondent inferences more readily for others' expression of unhappiness than happiness. Study 1 measured people's lay theory of the range of emotional expressions that happy and unhappy people enact. We found that people perceive that a person who is unhappy has a wider range of emotional expression than a person who is happy. Participants in Study 2 inferred that another's description of his/her own unhappy life was more revealing of that person's true attitudes and feelings than another's description of his/her own happy life. Following up on these findings, Study 3 showed that people's inferences regarding another's level of happiness were more affected by situational information when the person described a happy life compared to an unhappy life. Together, these three studies point to a negativity effect in person inference that also applies to the expression and communication of happiness and unhappiness.

(word count: 148)

Key words: emotional disclosures, correspondent inferences, happiness/unhappiness, negativity effect

But are You Really Happy?:

The Negativity Effect in the Inference of Happiness and Unhappiness

The proposition that bad is stronger than good, that is, that negatively valenced events are more influential to people than positively valenced events, has been confirmed in many aspects of psychology (for a review see Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). For instance, people weight costs more than gains in judgment (e.g., Kahneman & Tversky, 1984); negative behaviors are more diagnostic of the quality of a couple's relationship than positive behaviors (e.g., Gottman & Krokoff, 1989); there are more specific negative emotional terms than positive ones (e.g., Russell, Fernadez-Dols, Manstead, & Wellenkamp, 1995); and punishment generally leads to faster learning than reward (e.g., Penny, 1968).

A stronger effect of negativity compared to positivity has also been supported by many studies in person perception. Negative information about others receives more processing and it is given greater weight in final impressions compared to positive information (Anderson, 1965; Peeters & Czapinski, 1990; Kanouse & Hanson, 1972, Ybarra, 2001, 2002). For instance, people recall and recognize others' negative behaviors better than positive behaviors (e.g., Hastie & Mazur, 1978; Ybarra, Schaberg, & Keiper, 1999). Memory for others' negative behaviors also endures over time compared to memory of others' positive behaviors (Carlston, 1980), and people treat others' negative behaviors as better indicators of a person's dispositions than others' positive behaviors (Reeder & Brewer, 1979; Skowronski & Carlston, 1987; Snyder, Stephan, & Rosenfield, 1978; Vonk & Van Knippenberg, 1994; Ybarra & Stephan, 1996, 1999; Ybarra, 2002).

Many researchers have made reference to a positivity norm in society in trying to explain the negativity effect in person perception (Reeder & Brewer, 1979; Skowronski & Carlston,

1987; Snyder et al, 1978; Ybarra, 2002). Since social regulations encourage people to behave positively, positive behaviors are more common and supported by normative pressures, in addition to potentially reflecting a person's underlying attitudes, feelings, and dispositions (Ybarra, 2002; Reeder & Coovert, 1986). On the other hand, negative behaviors, which deviate from social norms, exclude the motivation to conform to the norm as a possible explanation for such behaviors. Therefore, positive behaviors, compared to negative behaviors, have a higher probability of being attributed to situational demands, allowing negative behaviors to have stronger effects on overall impressions than positive behaviors (Reeder & Brewer, 1979; Skowronski & Carlston, 1987; Vonk & Van Knippenberg, 1994; Ybarra & Stephan, 1996, 1999; Ybarra, 2002).

The negativity effect in person perception appears quite potent, even to the point where at times situational norms that pressure for the enactment of negative behaviors do not attenuate the correspondent inferences people readily make for such behaviors (Dreben, Fiske, & Hastie, 1979; Jones, Davis and Gergen, 1961; Reeder & Spores, 1983; Skowronski & Carlson, 1989; Ybarra, 2001; for a review see Ybarra, 2002). For example, Reeder and Spores (1983) showed that immoral behaviors led to dispositional inferences even when the behavior was in-role, in other words, under situational demands. In their study, the actor either donated money to charity (a moral behavior) or stole money from the fund (an immoral behavior) in situations in which the person's friend either encouraged or discouraged the behavior. The investigators found that when the actor's behavior was immoral, the situational information did not influence judgments of the target person, as they were generally judged as immoral. On the other hand, when the actor's behavior was moral, the person was judged as more moral when the situation discouraged moral behaviors than when the situation encouraged moral behaviors. Overall, these results indicate that negative information about a person's behaviors has a stronger impact on dispositional

happiness

inferences than positive information and is less open to the influence of situational constraints. The same pattern of results has been replicated in other character domains related to social desirability such as friendliness (Dreben et al, 1979; Vonk, 1993) and likeability (Vonk & Van Knippenberg, 1994).

The aim of the present research was to study another domain in which the negativity effect may dominate in correspondent inferences, and that has to do with the inference of others' happiness and unhappiness. Feeling happy is indicative of psychological well-being and social adjustment, especially in American culture (Markus & Kitayama, 1994; Wierzbicka, 1995). In addition, displays of unhappiness invoke calls for social support and sympathy, which may make people at times wary of approaching such interactions (Sarason & Sarason, 1999). Further, unhappy people themselves tend to become evasive and avoidant in social interactions, which can result in other problems in social life (Forgas & Cromer, 2004; Plutchik, 1980). Therefore, looking and sounding happy is a socially desirable condition that people expect from others, while looking and sounding unhappy may lead to costly consequences in social life.

Consistent with this proposal, studies on people's lying suggest social desirability in people's displays of happiness (DePaulo, Kashy, Kirkendol, Wyer & Epstein, 1996). These investigators found that about 25% of college students' lies involved faking positive affect, whereas about 3% of their lies related to negative affect. A second, community sample showed similar rates (23.79% for positive affect and 1.19% for negative affect). Faking positive affect included lies in which people pretended to like someone or something more than they really did, faking a positive emotion that they did not really feel, pretending to have a more positive opinion than they actually did, pretending to be more interested in a topic or a person or an event than they actually were, and saying that they did not mind something that they actually did. These results suggest that the expression of positivity is socially desirable and that people try to fake

happiness

happiness compared to unhappiness.

One question relevant to how people infer others' happiness is whether perceivers are aware of this positivity norm in the expression and communication of happiness/unhappiness (i.e., that they hold a lay theory of positivity). If perceivers possess such a lay theory about the differential expression of happiness and unhappiness, one implication is that people's expression of unhappiness might be perceived as more indicative of a person's actual attitude and feelings than people's expression of happiness. This should be the case because expressions of happiness compared to unhappiness can be more readily attributed to a motivation to conform to social norms. One consequence of such a process is that perceivers might also take into account more situational information when making judgments of others' expression of happiness than unhappiness. If this is the case, inferences regarding the expression of happiness and unhappiness might thus also follow the patterns of inference for other dimensions of socially desirable or undesirable behaviors and result in negativity effects in judgment.

The present research was designed to examine these different possibilities. Study 1 assessed whether people are aware of a positivity norm in the expression of happiness and unhappiness and thus expect more positivity than negativity in others' expressions. Study 2 examined whether people find the expression and communication of unhappiness as more revealing of a person's attitudes and feelings toward life than expressions of happiness. Finally, Study 3 tested whether this negativity effect is strong enough such that information about situational pressures fails to lead to adjustment of those inferences when they concern expressions of unhappiness but not happiness.

STUDY 1

Study 1 tested whether or not there is a positivity norm in the expression and communication of happiness. This was done by assessing people's lay theories about the range

happiness

of expression that happy and unhappy people enact. We asked participants to estimate how often

a person who is happy expresses unhappiness, and they were also asked to estimate how often an

unhappy person expresses happiness. As with other types of behaviors that may be governed by

social desirability, we reasoned that people would judge that a person with a positive condition (a

person who is happy) is less likely to express a negative condition (e.g., unhappiness), whereas a

person with a negative condition (e.g., a person who is unhappy) is quite likely to display a

positive condition on the same dimension (e.g., happiness). Such a pattern of results would mean

that expressions of happiness are more generally expected from others than expressions of

unhappiness.

Method

Participants

Twenty four students (7 males, 17 females; 18 White, 2 black, 1 Asian, 1 other, 2 no-

indication) were approached on the University of Michigan campus and asked to fill out the one-

page questionnaire.

Procedure and Design

In assessing people's lay theories, the participants answered four questions. Two

examples included: "In general, how often does a person in a happy (unhappy) mood express

unhappiness (happiness)?," and "In general, how often does a person in a happy (an unhappy)

situation express unhappiness (happiness)?" The questions were answered on 7-point scales (1 =

never, 7=very often) and were counterbalanced across the participants. Thus, the basic design of

the study was 2 (type of question; situation, mood) X 2 (valence of expression; a happy person

expressing unhappiness, an unhappy person expressing happiness) within participant design. At

the end of the questionnaire, the participants were asked to indicate their age, gender, and

ethnicity, and then they were thanked and debriefed.

Results

Participants' responses were submitted to a two-factor repeated measures ANOVA (type of question X valence of expression). Separate analyses that took question order into account indicated no effect of this variable, so question order will not be discussed further. Consistent with the hypothesized social desirability in the expression of happiness, the results produced a significant main effect of valence of expression, $F(1, 23)=6.76$, $p=.016$. That is, a person who is considered unhappy is thought to express happiness to a greater extent (M=2.86, SD=.21) than is a person who is considered happy thought to express unhappiness (M=2.33, SD=.14). There was no significant interaction between type of question and valence of expression, $F(1, 23)=.19$, $p=.664$. Thus, the questions, regardless of whether they referred to mood or the situation, showed the same pattern. Study participants judged that a person in an unhappy mood expresses happiness more often (M=2.67, SD=1.20) than a person in a happy mood expresses unhappiness (M=2.21, SD=.66), $t(23)=2.2$, $p=.038$, and they judged that a person in an unhappy situation expresses happiness more often (M=3.08, SD=1.35) than a person in a happy situation expresses unhappiness (M=2.46, SD=.98), $t(23)=1.84$, $p=.079$.

Discussion

The results from Study 1 showed that, overall, people believe that a person who is unhappy expresses happiness more often than does a person who is happy expresses unhappiness. These results suggest that the expression of happiness is normative, so that in daily life people expect others to be more likely to express happiness than unhappiness.

This lay theory concerning the expression of happiness/unhappiness may have an influence on the person inference process. Given that it is normative to express happiness, one implication is that expressed happiness may be perceived as ambiguous in terms of its underlying causes. In contrast, apparent unhappiness in a person should be counter-normative, which should

happiness

eliminate situational constraints as a possible explanation for such expressions. If so, perceivers

should be more likely to see the expression of unhappiness compared to happiness as a more

genuine expression of the person's attitudes and feelings. Study 2 tested this implication of the

present analysis.

STUDY 2

In Study 2 we set out to test the hypothesis that people perceive others' expression of

unhappiness as more revealing of the person's true attitudes and feelings compared to others'

expression of happiness. We did this by asking participants in a between participants design the

extent to which the seeming happiness or unhappiness with life expressed by a person revealed

that person's true attitudes and feelings toward life. Based on the proposal that people believe

that happiness is also likely to be expressed by a person who thinks and feels the opposite way (a

person who is unhappy), whereas unhappiness is less likely to be expressed by someone who is

happy, we expected that participants would judge an unhappy expression (compared to a happy

one) as more revealing of the person's true attitudes and feelings.

Method

Pre-test of Happiness/Unhappiness Descriptions

We pre-tested the valence of the happy and unhappy life descriptions of a target person

to ensure they were comparable in extremity. Thirty-two students (24 females, 8 males; 28 white,

3 Asians, 1 no indication) were approached on campus (UM) and asked to read a one-paragraph

essay and answer a question about its evaluative tone. We gave half of the participants the happy

essay and the other half the unhappy essay about college life. After reading the essays, the

participants were asked to rate how positive the tone of the essay was on a 9-point scale (-4 very

negative, +4 very positive). As expected, the participants judged the tone of the happy essay

(M=3.12, SD=.89) as more positive than the tone of the unhappy essay (M=-3.44, SD=.81),

happiness

t(30)=21.831, *p*<.001. We compared the extremity of the two essays by recoding the ratings for the negative essays so that higher scores indicate greater positivity. Then we compared the means in the two conditions. The difference was not significant, *t*(30)=1.040, *p*=.307. The two essays were of equal evaluative extremity.

Participants

The participants for the study were recruited in different ways. We approached some students on campus and invited them to take part in the study (*n*=11). Another fifty-three participants received course credit to take part in the study, either through their graduate student instructors before the start of class or through the Psychology Department subject pool (In all, the participants included 21 males, 43 females; 50 white, 5 black, 2 Latino, 6 Asian, 1 other). Of these participants one was excluded from the analyses because she reported knowing the purpose of the study.

Materials and procedure

The procedure was the same regardless of how the participants were recruited for the study. The participants were given a questionnaire packet and were asked to read the instructions on the first page before starting. In the instructions the participants were told that the psychology department had collected one-paragraph essays from students dealing with their satisfaction with college life, which was done as part of another project aimed at improving college students' lives. The instructions went on to state that the department needed to get baseline estimates of students' attitudes about college life and thus needed their opinions regarding the essays. On the next page, the participants were presented a one-paragraph essay written by a college student. Depending on condition, the essay (see below) expressed satisfaction and happiness with college life or dissatisfaction and unhappiness with college life.

happiness

The Happy essay read:

I am very satisfied with my college life. I am doing well in my classes and my professors and GSIs are caring, so I really like them. I have a lot of work but I enjoy it. I am living with my friend in an apartment nearby the business school building and we get along very well. My apartment is just 5 minutes away from campus, so it is very convenient to go to school every morning. On weekends there are many fun events, on and off campus. I know many people who are friendly, fun, and smart. All in all, I am satisfied with my college life.

The Unhappy essay read:

I am not very satisfied with my college life. I am not doing well in my classes and my professors and GSIs are not very caring, so I don't like them at all. I always have too much work to do. I am living with my friend in an apartment off-campus and we don't get along. My apartment is 20 minutes away from campus, so it is a pain to take a bus every morning. On weekends there is usually nothing exciting going on. I do not know many people except for a couple of friends. All in all, I am not satisfied with my college life.

After reading the essays, the participants answered the questions that served as the dependent measures. Two questions assessed the extent to which the essays revealed the person's affective states. The questions were: "To what extent do you think this student revealed his/her true attitude and feelings toward college life in the essay?" (0=not at all, 6=very much) and "How likely is it that the essay reveals this student's degree of happiness or unhappiness?" (1=very unlikely, 7=very likely). One other question asked participants how certain they were of the target person's level of happiness/unhappiness (1=very uncertain, 7=very certain). At the end of the questionnaire, the participants were thanked and debriefed.

Results

The first question answered on the 0 to 6 scale was recoded to a 1 to 7 scale so that all the questions would be on the same scale. Participants' responses to the first two questions were averaged to create a composite score regarding their judgment of whether the essays revealed the person's true feelings, $r(62)=.57$. These scores were then submitted to a between participants t-test. Consistent with our hypotheses, the participants in the unhappy essay condition judged that essay as more revealing of the person's happiness (attitude and feelings toward life) ($\underline{M}$=5.35, SD=.81) than participants in the happy essay condition ($\underline{M}$=4.16, SD=1.23), $t(61)$= 4.544, p =.00003. As for the participants' judgment of certainty regarding the target person's level of happiness/unhappiness, the results also indicated that participants were significantly more certain in the person's level of happiness for the writer of the unhappy essay ($\underline{M}$=4.94, SD=1.29) than the writer of the happy essay ($\underline{M}$=4.22, SD=1.39), $t(61)=2.124, p=.038$.

Discussion

The main finding from Study 2 indicated that even though the extremity of the tone of the two essays was comparable, the unhappy description of life was perceived as more revealing of the person's attitudes and feelings than the happy description of life. Participants were also more certain in the target person's level of happiness for the unhappy description than the happy description.

In Study 3 we wanted to further develop the present analysis regarding whether people more readily make correspondent inferences for the expression of unhappiness than the expression of happiness. We did this by examining the effect information concerning situational factors would have in altering perceivers' judgments of others' happiness and unhappiness.

STUDY 3

In Study 2, people found the unhappy description of life as more revealing of the

happiness

person's true attitudes and feelings than the happy description of life. In Study 3, we measured people's inferences of the person's level of happiness/unhappiness, as well as genuineness judgments, when situational information was made available that could potentially qualify such inferences. We hypothesized that people's inferences about a person's unhappiness should be less influenced by situational information than people's inferences about a person's happiness, as inferences from negative behaviors tend to be less influenced by situational information compared to positive behaviors in other trait domains related to social desirability. We tested this hypothesis by adding situational information to the previously used happy and unhappy scenarios. Participants were asked to infer the target person's degree of happiness/unhappiness and also the genuineness of the essay after reading about the target person's economic situation in addition to their essay. Given that economic situations have been suggested as an important situational factor that people believe affects life satisfaction and happiness (Frey & Stutzer, 2003; Hsee & Zhang, 2004), we chose the nature of the target person's economic situation as our manipulation of situational information. The target person's economic situation was either good or bad; therefore, the valence of the situation either matched or mismatched the valence of the essay.

The situational information we used in this study differs from manipulations of situational constraints used in traditional correspondent inference studies. For example, in some earlier studies participants were pressured to act out certain attitudes or behaviors (e.g., to act like an extrovert) regardless of their genuine personality (Jones, Davis & Gergen, 1961; Reeder & Brewer, 1979; Skowronski & Carlston, 1987; Snyder et al, 1978; Vonk & Van Knippenberg, 1994). Although as a situational constraint we could have presented information indicating the target was coerced to write the essay, we chose to detail the target's economic situation instead because such information maps onto the perceived experience of the target as being genuinely happy or unhappy. Since emotions are perceived situationally driven (e.g., Frey & Stutzer, 2003;

happiness

<mark>Hsee & Zhang, 2004), and the situationally-driven emotions often leak out through expressions involuntarily, as for emotions, emotion-provoking situations can be considered as situational constraints for expressions</mark>. Our use is in line with that of other researchers. For instance, in one study (Gilbert, Pelham, & Krull, 1988), participants were provided with information about a situation that could induce an emotion (e.g., interview regarding sexual topics) when perceivers' task was to infer the target person's dispositional anxiety after watching a video clip of a person acting anxiously. Similarly, we used information about the situation that could be taken as the inducer of the target's happiness/unhappiness instead of relying on less natural constraints (i.e., being told by the experimenter to write something).

Method

Participants

One hundred and four U of M students participated in the study (24 males, 72 females, 8 no indication; 74 white, 5 black, 10 Asian, 4 Latino, 11 no indication). Fifty-five students were recruited from an introductory social psychology course and 49 students from an introductory psychology course. The participants were asked by their instructors if they wanted to volunteer for the study before class. Among these 104 participants, we excluded in the subsequent analysis 5 people who knew the purpose of the study, 7 people for whom the manipulation of valence of the economic situation did not work (people who marked negative scores for the economic situation manipulation check in good economic situation condition or vice versa) and 5 people for whom the manipulation of valence of the essays did not work (people who marked negative scores for essay valence manipulation check in happy essay condition or vice versa). Among excluded participants, 4 were in the positive essay-positive situation condition, 4 in the negative essay-positive situation condition, 6 in the positive essay-negative situation condition, and 3 in the negative essay-negative situation condition. Therefore, 87 people were included in the final

happiness

analyses.

Procedure

  Participants received a questionnaire package. The introduction to the study was the same as that used in Study 2 except that participants were told that the psychology department collected the students' background information (economic situation) in addition to their essays on college life satisfaction. On the second page, participants were presented with information about the student's background. The background information was related to the person's economic situation and was either good or bad. The good or bad economic situation information was followed then on page 3 by either a happy or an unhappy essay, so that each participant read one of four combinations of background information and essays. Thus, the design of the study was a 2 (valence of economic situation: happy, unhappy) X 2 (valence of essay; happy, unhappy) between participants design. The background information in the different scenarios read:

Happy economic situation scenario

The student is a junior majoring in biology. He was born and raised in Troy, Michigan. His parents are both doctors and run a clinic together. His parents want him to be comfortable and to have diverse experiences during college, so they give him enough money for living expenses and small luxuries. He has one younger sister who is in high school. The following is this student's description of his satisfaction with college life.

Unhappy economic situation scenario

The student is a junior majoring in biology. He was born and raised in Troy, Michigan. His father passed away when he was 11. Since his mother cannot afford to fully support him, he works full time every summer and part time during the semesters to pay tuition. However, he

happiness

often has difficulties paying for rent and materials for school. He has one younger sister who is in high school. The following is this student's description of his satisfaction with college life.

The happy and unhappy essays were identical to those of Study 2. After reading the target person's background information and essay, participants were asked two questions regarding their inferences of the target person's happiness. The questions were "In reality, how happy or unhappy do you think this student is with his college life?"(-4 very unhappy, +4 very happy) and "In reality, do you think this student finds his college life exciting and enjoyable or dull and unenjoyable?"(-4 very dull and unenjoyable, +4 very exciting and enjoyable). Participants were also asked two questions regarding how revealing the essays were of the person's happiness. The questions were "How likely is it that the student's essay reveals his degree of happiness or unhappiness?" (-4 very unlikely, +4 very likely) and "To what extent do you think this student revealed his true feelings toward college life in his essay?" (0 not at all, 8 very much). Finally, the participants were asked "Based on the student's background information, how happy or unhappy an economic situation is the student in?" (-4 very unhappy, +4 very happy) and "How positive or negative was the tone of the student's essay?" (-4 very negative, +4 very positive). At the end of the questionnaire, the participants were asked to indicate their age, gender, and ethnicity. Then, they were thanked and debriefed.

<div align="center">Results</div>

Manipulation check

For the manipulation of the situation's valence, the good economic situation was perceived significantly more positive (M=3.18, SD=.76) than the bad economic situation (M=-

happiness

2.26, SD=1.16), *t*(85)=26.019, *p*<.001. For the manipulation of valence of essay, the happy essay was perceived significantly more positive (M=3.02, SD=.13) than the unhappy essay (M=-3.21, SD=.13), *t*(85)=35.117, *p*<.001.

Inference of happiness

Participants' responses to the two questions regarding their inference of the target's happiness were averaged, *r*(85)=.90 and submitted to a 2 (valence of economic situation) X 2 (valence of essay) between participants ANOVA. Table 1 displays the means and standard deviations associated with this analysis. The analysis produced a significant main effect of valence of essay, *F*(1, 83)=398.56, *p*<.001, as participants perceived the writer of the positive essay as happier (M=2.39, SD=.17) than the writer of the negative essay (M=-2.47, SD=.17). There was also a marginally significant main effect of valence of economic situation, *F*(1, 83)=3.71, *p*=.06. Participants perceived the writer in a happy economic situation as happier (M=.19, SD=.17) than the writer in an unhappy economic situation (M=-.27, SD=.17).

Of greater relevance to our purposes, the interaction effect was marginally significant, *F*(1, 83)=3.35, *p*=.07. In particular, in testing our specific hypotheses, simple effects analyses indicated that in the happy essay condition, the target person was perceived as happier when the economic situation was good (M=2.84, SD=.84) than when the economic situation was bad (M=1.93, SD=1.3), *F*(1, 41)=7.59, *p=.009*. In contrast, in the unhappy essay condition, the target person was perceived equally unhappy when the economic situation was good (M=-2.45, SD=.97) as when the economic situation was bad (M=-2.48, SD=1.35), *F*(1, 42)=.004, *n.s.*

Judging how Revealing the Expressions were

Participants' responses to the two questions relevant to the revelation of the target person's happiness/unhappiness were averaged after they were coded on 0 to 8 scales, *r*(86)=.63. This composite score was then submitted to a 2 (valence of economic situation) X 2 (valence of

happiness

essay) between participants ANOVA (see Table 2 for means and standard deviations). The only

reliable effect was the interaction of the two factors, $F(1, 83)=4.19$, *p=.044*. Simple effects

analyses showed that in the happy essay condition, the target person was perceived as more

revealing when the economic situation was good (M=5.36, SD=1.54) than when it was bad

(M=4.21, SD=1.57), F(1, 41)=5.885, *p=.02*. On the other hand, in the unhappy essay condition,

the target person was perceived as equally revealing when the situation was good (M=5.14,

SD=.34) as when the situation was bad (M=5.36, SD=.34), F(1, 42)=.227, *n.s.*

Discussion

The findings from Study 3 showed that people took into account situational information

when they made inferences about others' description of happiness but not others' description of

unhappiness. These findings build on those from the previous two studies. They are consistent

with people's working assumption of a positivity norm in the expression and communication of

happiness. Because expressions of unhappiness are not normative, regardless of the situation in

which they are expressed, people consider them revealing of the person's true attitude and

feelings. On the other hand, people may not consider others' expression of happiness to be

revealing of their actual attitudes and feelings generally, and especially when a person's situation

is bad, given that it is often normative to express happiness even in an unhappy situation.

present results are at a general level consistent with Trope's (1986) findings showing

that people's inferences from ambiguous facial expressions (associated with multiple emotions)

were influenced more by situational information than were people's inferences from

unambiguous facial expressions (associated with only one emotion). In particular, a person with

an ambiguous expression was judged as happier when the situation was good than bad, but the

perception of a person with an unambiguous expression was not influenced by the valence of the

situation. Thus, situational information played a large role in interpretation and inference when

happiness

the display was ambiguous in nature, which we posit to be the case with the expression of happiness.

Although Trope's (1986) model indicates that people use situational information when identifying ambiguous compared to unambiguous stimuli, but use such information to correct subsequent dispositional inferences made only for previously identified unambiguous stimuli, it may be that at times situational correction of inferences may also occur when that input is ambiguous in nature (see Ybarra, 2002 for a related discussion). In our study we tried to tap into the inferences themselves (not behavior or expression identification) by asking participants to judge how revealing the target person's communications were of her genuine happiness/unhappiness, and we found that such judgments were affected by situational information when the context involved inferring a person's happiness, which is ambiguous in nature because of its possible multiple causes. It may be as Ybarra (2002) has suggested that when dealing with classes of behavior for which people have prior knowledge (lay theories) of their relative causes (happiness caused by situations or dispositions, unhappiness caused by dispositions), people's inferences from behaviors and not just the identification of the category to which the behavior belongs will be affected by situational information when prior knowledge suggests that such acts or expressions may be caused by situational factors.

General Discussion

The present study investigated people's inferences from others' expression of happiness and unhappiness. The findings from Study 1 showed that people have lay theories indicating that a person who is unhappy has a wider range of expressions of happiness/unhappiness than a person who is happy. The findings from Study 2 showed that even when others' description of happiness and unhappiness were comparable in extremity, people judged others' description of their happiness as less revealing of the person's true attitudes and feelings than others'

happiness

description of unhappiness. Study 3 showed that people were more likely to use situational information when inferring others' happiness if they sounded happy than unhappy, in other words, people were more likely to make correspondent inferences from others' unhappiness than happiness.

The present findings are consistent with our analysis. We have argued that due to the normative nature of expressing and communicating happiness, people will perceive such expressions and communications as less reflective of the person's true attitudes and feelings than expressions and communications of unhappiness. We also showed that people are more confident about the latter than the former, and with less information.

The present results have implications for the attribution process. Our results suggest that others' positive displays may induce more laborious and conscious information processing than others' negative displays. According to Gilbert et al's 3-stage model of attribution, the first stage, categorization of behaviors, and the second stage, dispositional inference, are automatic. For example, when people see a politician donating money to charity, they automatically categorize the behavior as kind and also automatically categorize the actor in dispositional terms, as a kind person. However, in the third stage, correction of this dispositional attribution occurs when perceivers consider the situation. For example, people might consider the fact that the person was running for an election the following month and correct their judgment, concluding that the person is actually not as kind as he looks. Or people might consider the fact that the he is not wealthy and conclude that he is even more kind.

Such a model may apply to some of the present results but not all of them. The present findings suggest the possibility that people might go through these three stages of attribution for others' expression of happiness. If we consider dispositional inference as similar to the inference of internal feelings, in the first stage, participants may observe another's seeming happiness and

happiness

automatically categorize it as an expression of happiness. In the second stage, they may automatically infer that the person is happy. After this automatic inference of the person's happiness, in a later stage they should take into account available situational information and correct their inference (see earlier discussion of Trope's model and the influence of prior knowledge), resulting in different judgments depending on the situational information at hand. In contrast, inferences from others' expression of unhappiness are not influenced by situational information in the present research. This suggests the possibility that inferences from others' expression of unhappiness may undergo the first two automatic stages of processing but not the third stage. In sum, people might go through a more cognitively intensive stage of inferential correction as well as the automatic stages of dispositional inference before believing that others are happy (but not that others are indeed unhappy) (also see Ybarra et al., 1999). Future studies manipulating cognitive business, for example, may serve to test this possibility.

This prediction is also in line with the argument that positive behaviors are associated with multiple causes while negative behaviors are associated with a single cause (Liu, Karasawa, & Weiner, 1992). In various areas of life, people may think that multiple causes are necessary to explain positive outcomes, whereas a single cause is sufficient to explain negative outcomes. For example, success elicits perceptions of multiple causality, such as the contribution of both high ability and high effort, while failure can be explained by a single sufficient cause such as absence of either ability or effort (Kun & Weiner, 1973). Similarly, positive emotional experiences require multiple conditions (e.g., both good health and success in school), but negative emotional experiences can be elicited by a single cause (e.g., illness or failure in school) (Liu et al., 1992). The present study suggests the possibility that judging somebody as happy might also require multiple conditions to be satisfied (the person's own expression, the situation, etc.), while judging somebody as unhappy might be based on a single condition (i.e., the person's own

happiness

expression itself).

The present analysis rests in part on the idea that a positivity norm exists in the expression and communication of happiness/unhappiness and that negative expressions normally can lead to negative consequences in a people's social life. However, this may not be a universal phenomenon. Markus and Kitayama (1994) proposed that Americans have a strong motivation to elaborate and emphasize positive emotional experiences whereas the Japanese do not. In fact, the Japanese have display rules for masking positive emotions as well as negative ones (Matsumoto, Kasri, & Kooken, 1999). Given that Asians perceive happiness and unhappiness as having a dialectical relationship and as coexisting (Leu, 2004), looking happy all the time might not be socially desirable and normative in East Asia. If this is the case, East Asians might use situational information to infer both others' expressions of happiness and unhappiness to a similar degree. This might be expected because neither happiness nor unhappiness may be seen as revealing a person's true happiness given the occasional social desirability of negativity as well as positivity. This seems to us to be an interesting question for future studies.

In sum, this research suggests that people make correspondent inferences more readily for others' unhappiness than happiness. The inference of happiness appears to share some similarity to the mechanism that underlies the inference of positive and negative behaviors. In addition, the present study suggests that people require multiple kinds of information, including situational information and the person's expressions themselves, before they believe another person is truly happy, but that they solely depend on a person's negative affective displays to conclude that he is unhappy. Therefore, it seems that it is more difficult for people to acknowledge that another person is truly happy versus truly unhappy.

References

Anderson, N. H. (1965). Primary effects in personality impression formation using a generalized

order effect paradigm. *Journal of Personality and Social Psychology, 2*, 1-9

Asch, S. E. (1952). *Social psychology*. New York: Prentice Hall.

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. (2001). Bad is stronger than

good. *Review of General Psychology, 5*(4), 323-370.

Bodenhausen, G. V. (1988). Stereotypic biases in social decision making and memory: Testing

process models for stereotype use. *Journal of Personality and Social Psychology, 55,* 726-

737.

Carlston, D. E. (1980). The recall and use of traits and events in social inference processes.

Journal of Experimental Social Psychology, 16, 303-328.

DePaulo, B. M., Kashy, D. A., Kirkendo, S. E., Wyer, M. M., & Epstein, J. A. (1996). *Lying in

everyday life.* Journal of Personality and Social Psychology, 70 (5), 979-995.

Dreben, E. K., Fiske, S. T., & Hastie, R. (1979). The independence of evaluative and item

information: Impression and recall order effects in behavior-based impression formation.

Journal of Personality and Social Psychology, 37, 1758-1768.

Forgas, J. P., & Cromer, M. (2004). On being sad and evasive: Affective influences on verbal

communication strategies in conflict situations. *Journal of Experimental Social

Psychology, 40,* 511-518.

Frey, B. S., & Stutzer, A. (2003). Economic consequences of mispredicting utility. Unpublished

manuscript.

Gilbert, D. T., Pelham, B. W., & Krull, D. S. (1988). On cognitive busyness: When person

perceivers meet persons perceived. *Journal of Personality and Social Psychology, 54,* 733-

740.

happiness

Gottman, J. M., & Krokoff, L. J. (1989). Marital interaction and satisfaction: A longitudinal view. *Journal of Consulting and Clinical Psychology, 57*, 47-52.

Hastie, R., & Mazur, J. (1978). *Memory for information about people presented on film.* Unpublished manuscript, Cambridge, MA: Harvard University.

Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.

Hsee, C. K., & Zhang, J. (2004). Distinction bias: Misprediction and mischoice due to joint evaluation. *Journal of Personality and Social Psychology, 86*, 680-695.

Jones, E. E., Davis, K. E., & Gergen, K. J. (1961). Role playing variations and their informational value for person perception. *Journal of Abnormal and Social Psychology, 63*, 302-310.

Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. *American Psychologist, 39*, 341-350.

Kanouse, D. E., & Hanson, L. R., Jr. (1972). Negativity in evaluations. In E. E. Jones, D. E. Kanouse, H. H. Kelly, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attribution: Perceiving the causes of behavior* (pp.47-62). Morristown, NJ: General Learning Press.

Krull, D. S., & Dill, J. C. (1998). Do smiles elicit more inferences than do frowns? The effect of emotional valence on the production of spontaneous inferences. *Personality and Social Psychology Bulletin, 24*(3), 289-300.

Kun, A., & Weiner, B. (1973). Necessary versus sufficient causal schemata for success and failure. *Journal of Research in Personality, 7*, 197-207.

Leu, J. (2004). Emotional dialecticism versus optimism: Cultural styles of emotion regulation among Chinese, Japanese, and Americans. Unpublished doctoral dissertation, Univ. of Michigan, Ann Arbor.

Liu, J. H., Karasawa, K., & Weiner, B. (1992). Inferences about the causes of positive and

happiness

negative emotions. Personality and Social Psychology Bulletin, 18 (5), 603-615.

Markus, H. R., & Kitayama, S. (1994). The cultural construction of self and emotion: Implications for social behavior. In Kitayama, S. & Markus, H.R(Eds.), *Emotion and Culture*, pp.89-130. Washington D.C.: American Psychological Association.

Matsumoto, D., Kasri, F., & Kooken, K. (1999). American-Japanese cultural differences in judgments of expression intensity and subjective experiences. *Cognition and Emotion, 13*(2), 201-218.

Peeters, G., & Czapinski, J. (1990). Positive-negative asymmetry in evaluations: The distinction between affective and informational negativity effects. *European Journal of Social Psychology, 1*, 33-60.

Penny, R. K. (1968). Effect of reward and punishment on children's orientation and discrimination learning. *Journal of Experimental Psychology, 1*, 140-142.

Plutchik, R. (1980). A general psychoevolutionary theory of emotion. In R. Plutchik & H. Kellerman (Eds.), *Emotion: Theory, research, and experience: Vol. 1. Theories of emotion* (pp. 245-270). Orlando, FL; Academic Press.

Reeder, G. D., & Brewer, M. B. (1979). A schematic model of dispositional attribution in interpersonal perception. *Psychological Review, 86,* 61-79.

Reeder, G. D., & Coovert, M. D. (1986). Revising an impression of morality. *Social Cognition, 4,* 1-17.

Reeder, G. D., & Spores, J. M. (1983). The attribution of morality. *Journal of Personality and Social Psychology, 44,* 736-745.

Russell, J. A., Fernandez-Dols, J. M., Manstead, A. S. R., & Wellenkamp, J. (Eds.). (1995). Everyday conceptions of emotion: An introduction to the psychology, anthropology, and linguistics of emotion. *Behavioral and social sciences* (Vol. 81, pp244-297). Dordrecht,

happiness

The Netherlands: Kluwer Academic.

Sarason, I. G., & Sarason, B. (1999). *Abnormal Psychology; the problem of maladaptive behavior*. Upper Saddle River, NJ, Prentice Hall.

Schneider, D. J., Hastorf, A. H., & Ellsworth, P. C. (1979). *Person Perception*. Reading, MA: Addison-Wesley.

Sherman, J. W., & Frost, L. A. (2000). On the encoding of stereotype-relevant information under cognitive load. *Personality and Social Psychology Bulletin, 26*, 26-34.

Skowronski, J. J., & Carlston, D. E. (1987). Social judgment and social memory: The role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology, 52,* 689-699.

Snyder, M. L., Stephan, W. G., & Rosenfield, D. (1978). Attributional egotism. In J. H. Harvey, W. Ickes, & R. F. Kidd (Eds.), *New directions in attribution research* (Vol. 2, pp. 91-120). Hillsdale, NJ: Erlbaum.

Tagiuri, R. (1958). Introduction. In R. Tagiuri & L. Petrullo (Eds.), *Person perception and interpersonal behavior* (pp. 9-16). Stanford, CA: Stanford University Press.

Trope, Y. (1986). Identification and inferential processes in dispositional attribution. *Psychological Review, 93,* 239-257.

Van Goozen, S., & Frijda, N. H. (1993). Emotion words used in six European countries. *European Journal of Social Psychology, 23*, 89-95.

Vonk, R., & Van Knippenberg, A. (1994). The sovereignty of negative inferences: Suspicion of ulterior motives does not reduce the negativity effect. *Social Cognition, 12,* 169-186.

Wierzbicka, A. (1994). Emotion, Language, and cultural script: Implications for social behavior. In Kitayama, S. & Markus, H.R(Eds.), *Emotion and Culture*, pp.133-196. Washington D.C.: American Psychological Association.

happiness

Ybarra, O. (2001). When first impressions don't last: The role of isolation and adaptation processes in impression revision. *Social Cognition, 19*, 491-520.

Ybarra, O., Schaberg, L., & Keiper (1999). Favorable and unfavorable target expectancies and social information processing. *Journal of Personality and Social Psychology*, *77*, 698-709.

Ybarra, O., & Stephan, W. G. (1996). Misanthropic person memory. *Journal of Personality and Social Psychology, 70,* 691-700.

Ybarra, O., & Stephan, W. G. (1999). Attributional orientations and the prediction of behavior: The attribution-prediction bias. *Journal of Personality and Social Psychology, 76,* 718-727.

Ybarra, O. (2002). Naïve causal understanding of valenced behaviors and its implications for social information processing. *Psychological Bulletin, 128* (3), 421-441.

happiness

Table 1: Mean rating of the target person's actual happiness as a function of valence of the essay

(display) and valence of situation for Study 3.

	Valence of essay (display)	
	Happy essay	Unhappy essay
Valence of situation		
Happy economic situation	2.84 (.84)	-2.45 (.97)
Unhappy economic situation	1.93 (1.3)	-2.48 (1.35)

Higher scores indicate greater happiness.

happiness

Table 2: Mean rating of how revealing the target person's affect was judged to be as a function

of valence of the essay (display) and valence of situation for Study 3.

	Valence of essay (display)	
	Happy essay	Unhappy essay
Valence of situation		
Happy economic situation	5.36 (1.54)	5.14 (.34)
Unhappy economic situation	4.21 (1.57)	5.36 (.34)

Higher scores indicate greater revelation of affect.