On Cognitive Busyness: When Person Perceivers Meet Persons Perceived

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Person perception includes three sequential processes: categorization (what is the actor doing?), characterization (what trait does the action imply?), and correction (what situational constraints may have caused the action?). We argue that correction is less automatic (i.e., more easily disrupted) than either categorization or characterization. In Experiment 1, subjects observed a target behave anxiously in an anxiety-provoking situation. In Experiment 2, subjects listened to a target read a political speech that he had been constrained to write. In both experiments, control subjects used information about situational constraints when drawing inferences about the target, but cognitively busy subjects (who performed an additional cognitive task during encoding) did not. The results (a) suggest that person perception is a combination of lower and higher order processes that differ in their susceptibility to disruption and (b) highlight the fundamental differences between active and passive perceivers.

Many of us can recall a time when, as students, we encountered a professor at a party and were surprised to find that he or she seemed a very different sort of person than our classroom experience had led us to expect. In part, such discrepant impressions reflect real discrepancies in behavior: Professors may display greater warmth or less wit at a party than they do in the classroom. However, just as the object of perception changes across situations, so too does the perceiver. As *passive perceivers* in a classroom, we are able to observe a professor without concerning ourselves with the mechanics of social interaction. At a party, however, we are *active perceivers,* busy managing our impressions, predicting our partner's behavior, and evaluating alternative courses of action. Of all the many differences between active and passive perceivers, one seems fundamental: Active perceivers, unlike passive perceivers, are almost always doing several things at once (Gilbert, Jones, & Pelham, 1987; Gilbert & Krull, 1988; Jones & Thibaut, 1958).

How do the complexities of engaging in social interaction affect the process of social perception? This question is tractable only if one recognizes that there is no single process of social perception; rather, there are several different processes that together constitute the act of knowing others. Trope (1986) has argued that person perception has two major components: behavioral identification (what is the actor doing?) and attributional inference (why is the actor doing it?). The first of these processes involves categorizing an action, whereas the second involves causal reasoning about the categorized act. In addition, Quattrone (1982) has suggested that this second attributional stage may itself be comprised of two minor components: Perceivers first draw a dispositional inference about the actor and then adjust this inference by taking into account the various external forces that may have facilitated or inhibited the actor's behavior. In short, these perspectives suggest that person perception consists of (a) categorization (i.e., identifying actions), (b) characterization (i.e., drawing dispositional inferences about the actor), and finally, (c) correction (i.e., adjusting those inferences with information about situational constraints).

In what ways are these processes qualitatively distinct? Categorization is considered a relatively automatic process[1] that happens immediately and without conscious attention: We see Henry playing poker rather than simply moving his fingers, Herbert cheating rather than simply taking a card from his sleeve, and we are usually unaware of the inferential processes by which such categorizations are achieved (e.g., Bruner, 1957; Fodor, 1983; Nisbett & Wilson, 1977; cf. Gibson, 1979). Characterization and correction, on the other hand, are often considered more deliberate and conscious processes whereby perceivers apply inferential rules (e.g., the law of noncommon effects, the discounting and augmenting principles, etc.) to their observations and calculate the causes of behavior. We may conclude

This research was supported by National Science Foundation Grant BNS-8605443 to Daniel T. Gilbert.

We thank Bill Swann and several anonymous reviewers for their thoughtful comments on an earlier version of this article, Karen Enquist and Alan Swinkles for serving as target persons, and Mark Fishbein for his help with Experiment 2.

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[1] We use the word *automatic* here with some trepidation because this term has a very specific meaning on which few theorists agree. For our purposes, it is enough to say that a process is relatively automatic if it is generally impervious to disruption by concurrent cognitive operations and generally resistant to conscious control.

Journal of Personality and Social Psychology, 1988, Vol. 54, No. 5, 733-740
 0022-3514/88/$00.75

that Herbert is not truly malicious if a cocaine habit or bad luck on Wall Street forced him to raise extra cash with an extra ace, and we can easily articulate the logic by which such a conclusion is derived (Jones & Davis, 1965; Kelley, 1971).

We believe that this view of attributional processes is not entirely correct. In fact, we will suggest that in some senses characterization (the first attributional subprocess) is much more like categorization (the preattributional process) than it is like correction (the second attributional subprocess). Specifically, we will argue that characterization is generally an overlearned, relatively automatic process that requires little effort or conscious attention, whereas correction is a more deliberate, relatively controlled process that uses a significant portion of the perceiver's processing resources.

These contentions have an important consequence for the active perceiver. If they are true, then the peripheral cognitive activities in which active person-perceivers engage (e.g., impression management, social influence, etc.) may disrupt correction without similarly disrupting characterization. Thus, active perceivers may draw dispositional inferences from the behavior of others but be less likely than their passive counterparts to use situational constraint information to correct these inferences, simply because the demands of social interaction leave them unable to do so.

We stress the word *use* in this regard. It is clear that perceivers often fail to notice the situational constraints that impinge upon an actor: We may not realize, for example, the extent to which a husband's domineering manner forces his wife to behave submissively. If active perceivers do not identify situational constraints, then the fact that they do not use such information is unremarkable (Gilbert & Jones, 1986). We wish to suggest that even when active perceivers do identify the situational forces that shape another's behavior, they are often unable to use this information because doing so requires cognitive resources that the complexities of interaction have already usurped.

Experiment 1

We contend that cognitive busyness disables the ability to use situational constraint information (i.e., to augment and discount). It is tempting to test this hypothesis simply by engaging some subjects in social interaction with a target and allowing others to remain passive observers of such an interaction. However, this sort of operationalization would create serious confounds. Although the interactive subject would be cognitively busier than the observer subject, the subjects would also differ in other ways. Active perceivers may be more outcome dependent, may feel more involved and accountable, and may consider the target's actions more personally relevant than do passive perceivers. Thus, a clear test of the hypothesis requires that perceivers differ only in the number of cognitive tasks they perform.

There is, however, a second problem. If cognitively busy perceivers are given some extra task to perform, then they may not use situational constraint information simply because the extra task may leave them unable to gather it. If, for example, cognitively busy perceivers are asked to observe an actor behaving under situational constraint and are also asked to count the pulses of a nearby flashing light, then their failure to use situational constraint information may reflect only the misdirection of attention rather than the consumption of attentional resources.

In Experiment 1 we solved this problem by asking busy perceivers simultaneously to observe a target and to memorize information about the situational constraints on the target's behavior. Memorization requires rehearsal and rehearsal requires resources; thus, we predicted that these busy perceivers would remember the constraint information particularly well but would be unable to use the information they were rehearsing.

Method

Overview

Subjects watched seven silent clips from a videotape of a female target having a discussion with a stranger. In five of the seven clips, the target appeared extremely anxious. Half the subjects learned that in these five clips the target had been discussing anxiety-inducing topics (e.g., her sexual fantasies). The remaining subjects learned that in all seven clips the target had been discussing relaxation-inducing topics (e.g., world travel). Half of the subjects in each of these conditions were required to perform a cognitive rehearsal task (i.e., remembering the discussion topics in their proper sequence) while viewing the tape, and the remaining subjects were not. After viewing the tape, subjects rated the target's trait anxiety, predicted the target's future state anxiety, and attempted to recall the discussion topics.

Subjects

The subjects were 47 female students at the University of Texas at Austin who participated to fulfill a requirement of their introductory psychology course.

Instructions

On arrival at the laboratory subjects were greeted by a male experimenter who gave them a brief oral introduction to the experiment, provided them with complete written instructions, and then escorted each subject to a cubicle (equipped with video monitor) where she remained for the duration of the experiment.

The written instructions explained that subjects would watch seven short clips from a videotape of a getting-acquainted conversation that had ostensibly taken place earlier in the year. This conversation was alleged to have been part of a project on the role of discussion topics in friendship formation. Subjects were told that two female students (who had never previously met) had been asked to discuss each of seven topics for about 5 min and that subjects would be seeing a short (approximately 20 s) clip from each of these seven discussions. The instructions explained that during the getting-acquainted conversation the camera had been positioned behind one of the discussants, and thus only one of the discussants (the target) would be visible in the tape.

Situational Constraint Information

Subjects were told that to protect the privacy of the discussants the videotape would be shown without any sound. However, subjects were told that they would be able to tell which of the seven topics was being discussed in any given clip because the topic would appear in subtitles at the bottom of the screen.

Half the subjects were randomly assigned to the anxious topics condition. In this condition five of the seven subtitles indicated that the target was discussing anxiety-inducing topics (e.g., her sexual fantasies). In each of these five instances, the target appeared clearly anxious and un-

Table 1
Discussion Topics and Target's Behavior

Relaxing topics condition	Anxious topics condition	Target's behavior
Fashion trends	Public humiliation	Anxious
World travel	Hidden secrets	Anxious
Great books	Sexual fantasies	Anxious
Favorite hobbies	Favorite hobbies	Relaxed
Foreign films	Embarrassing moments	Anxious
Ideal vacations	Ideal vacations	Relaxed
Best restaurants	Personal failures	Anxious

easy. In the two remaining instances, the subtitles indicated that the target was discussing rather mundane topics (e.g., world travel); in these instances the target appeared relaxed and at ease. The remaining subjects were assigned to the relaxing topics condition. In this condition subjects saw the same behaviors seen by subjects in the anxious topics condition. However, all seven of the subtitles in this condition indicated that the target was discussing mundane and ordinary topics.

In the anxious topics condition, then, the target's apparent anxiety could logically be attributed to the nature of the topics she was discussing and thus was not indicative of dispositional anxiety. In the relaxing topics condition, however, the same behavior could not logically have been caused by the nature of the discussion topics, which should, in fact, have induced precisely the opposite sort of reaction. In this case the target's behavior was an excellent index of dispositional anxiety. The topics and the target's behavior in each of these conditions are shown in Table 1.

Cognitive Busyness Manipulation

Half the subjects were randomly assigned to the one-task condition. Subjects in this condition were told that at the end of the experiment they would be asked to make several judgments about the target's personality. The remaining subjects were assigned to the two-task condition. Subjects in this condition were told that in addition to making personality judgments, they should also be prepared to recall each of the seven discussion topics at the end of the experiment. (Subjects were told that this task would enable the experimenter to compare the subject's memory for the topics with the discussants' memories for the same topics.) We assumed that this additional memory task would encourage two-task subjects to rehearse the topics while they viewed the videotape.

Dependent Measures

Perceived trait anxiety. Before the experiment began, subjects were allowed to familiarize themselves with the trait anxiety measures. These measures required subjects to rate the target's dispositional anxiety on three 13-point bipolar scales that were anchored with the phrases (a) *is probably comfortable (uncomfortable) in social situations,* (b) *is a calm (nervous) sort of person,* and (c) *is generally relaxed (anxious) with people.* It was stressed that by marking the scales subjects should indicate "what kind of person the target is in her day to day life" and not just "how she was acting."

Recall of discussion topics. After seeing the videotape, subjects completed the trait anxiety measures described. Next, subjects were given 10 min to recall each of the seven discussion topics in their proper order.

Predicted state anxiety. Finally, subjects were asked to predict the target's state anxiety (i.e., how she would feel) in each of three hypothetical situations: (a) when being asked to give an impromptu presentation in a seminar, (b) when noticing that a male acquaintance had seen her lose her bikini at a local pool, and (c) when noticing a run in her stockings during a corporate job interview. Subjects predicted the target's state anxiety in each of these situations on three 13-point bipolar scales anchored with the phrases *extremely anxious* and *not at all anxious.* After completing these measures, subjects were probed for suspicion, debriefed, and dismissed.

Results and Discussion

Recall of Discussion Topics

At the end of the experiment, subjects were asked to recall the discussion topics. Subjects' recall attempts were coded as follows: no points if the subject failed to recall the topic, 1 point if the subject recalled the topic's meaning but not its precise wording (e.g., global travel rather than world travel), and 2 points if the subject recalled the topic verbatim. Thus, subjects could receive from 0 to 14 points on the recall index.

A 2 (cognitive tasks: one or two) × 2 (discussion topics: relaxing or anxious) analysis of variance (ANOVA) performed on this recall index revealed only a main effect of cognitive tasks, $F(1, 43) = 6.38$, $p < .02$, $MS_e = 3.98$. Two-task subjects recalled more topics ($M = 11.79$) than did one-task subjects ($M = 10.30$). This seems to indicate that two-task subjects did indeed devote some extra cognitive resources to the rehearsal and memorization of the discussion topics.

Perceived Trait Anxiety

We averaged the three measures of perceived trait anxiety (comfortable–uncomfortable, calm–nervous, and relaxed–anxious) to create a perceived trait anxiety index (coefficient $\alpha = .78$). A 2 × 2 ANOVA performed on this index revealed a main effect of discussion topic, $F(1, 43) = 7.55$, $p < .01$, $MS_e = 28.92$. This effect, however, was qualified by the predicted Cognitive Task × Discussion Topic interaction, $F(1, 43) = 4.07$, $p = .05$. As Table 2 shows, one-task subjects used the situational constraint information (i.e., the discussion topics) both to discount and to augment. In the anxious topics condition, one-task subjects discounted by rating the target as less dispositionally anxious than she appeared to be, whereas in the relaxing topics condition, one-task subjects augmented by rating the target as more dispositionally anxious than she appeared to be. Thus, the target was seen as more trait-anxious when she displayed anxiety during a discussion of relaxing rather than anxious topics, $F(1, 21) = 7.78$, $p < .01$.

Two-task subjects, however, did not use the situational con-

Table 2
Subjects' Perceptions of Target's Trait Anxiety

	One task		Two tasks	
Discussion topic	*M*	*n*	*M*	*n*
Relaxing	10.31	12	9.28	13
Anxious	7.79	11	8.88	11
Difference	2.52		0.40	

Note. Higher values indicate greater perceived trait anxiety.

Table 3
Subjects' Predictions of Target's State Anxiety in Hypothetical Situations

Discussion topic	Cognitive tasks	
	One task	Two tasks
Relaxing	11.58	10.13
Anxious	9.67	10.45
Difference	1.91	−0.32

Note. Higher values indicate greater predicted state anxiety.

straint information (i.e., they neither discounted nor augmented). These subjects concluded that the target was equally trait anxious regardless of which topics she had been asked to discuss, $F(1, 22) < 1$. It is worth noting that two-task subjects drew this conclusion despite the fact that they were more likely than one-task subjects to recall the discussion topics.

Predicted State Anxiety

Subjects' predictions of the target's state anxiety in three hypothetical situations were averaged to create a predicted state anxiety index (coefficient $\alpha = .76$). A 2 × 2 ANOVA performed on this index revealed only the predicted Cognitive Tasks × Discussion Topic interaction, $F(1, 43) = 4.56$, $p < .05$, $MS_e = 29.02$. As Table 3 shows, one-task subjects predicted that the apparently anxious target who discussed relaxation-inducing topics would experience more state anxiety in new situations than would the apparently anxious target who discussed anxiety-inducing topics, $F(1, 21) = 4.05$, $p < .06$. Two-task subjects, however, predicted the same amount of state anxiety in both conditions, regardless of which topics the target had been asked to discuss, $F(1, 22) < 1$. This pattern of results is similar to the pattern seen earlier on the perceived trait anxiety index and suggests that those earlier ratings do indeed reflect true dispositional attributions (rather than some potential confusion about the meaning of the scales).

Evidence of Mediating Processes

Memory for the discussion topics may be considered an index of how much of their cognitive resources two-task subjects devoted to the peripheral task. We have claimed that the use of situational constraint information is disabled by peripheral tasks; thus, those subjects who spent the greatest amount of their cognitive resources on the peripheral task (i.e., who showed the best recall of the topics) should have been the least likely to use the situational constraint information. This means that the two-task subjects in the anxious topics condition who recalled the greatest number of topics (i.e., those who presumably devoted the most resources to the peripheral task) should have perceived the greatest amount of trait anxiety, whereas those who recalled the fewest number of topics should (like the one-task subjects) have perceived the least amount of trait anxiety. This is precisely what happened. For two-task subjects in the anxious topics condition there was a positive correlation between recall and perceived trait anxiety, $r(9) = .56$, $p < .05$.

Similar logic predicts precisely the opposite pattern of correlation for two-task subjects in the relaxing topics condition. In this condition, subjects who recalled the greatest number of topics should have perceived the least amount of trait anxiety, whereas those who recalled the fewest number of topics should (like the one-task subjects) have perceived the greatest amount of trait anxiety. Again, this was the case. In this condition there was a negative correlation between recall and perceived trait anxiety, $r(11) = -.61$, $p < .05$. These correlations provide strong internal support for our claim that cognitive busyness mediates the tendency to use situational constraint information.

Experiment 2

The results of Experiment 1 are clear: Those subjects who performed an extra task during person perception were particularly unlikely to use information about the situational constraints that were affecting the target. This was true despite the fact that these subjects were particularly likely to recall the situational constraint information. This finding is consistent with our suggestion that initial characterizations require fewer resources than do subsequent corrections.

Two important questions arise. First, does the rehearsal task that subjects performed have any real world analog? We believe it does. For example, active perceivers (unlike passive perceivers) must constantly be prepared to execute behavior. Often this means that one must prepare one's actions at the same time that one's partner is acting. Most of us can remember a conversation in which we wanted to say something but had to wait until our partner finished talking. During this time we probably rehearsed our contribution, thus depleting the cognitive resources available for drawing inferences about our loquacious partner's ongoing behavior. In Experiment 2 we attempted to demonstrate that the rehearsal engendered by behavioral preparation would have the same effects as the rehearsal task used in Experiment 1.

Second, it is important to ask whether these findings apply to verbal behavior as well as to nonverbal behavior. It seems possible that the characterization of nonverbal behavior is (as we have argued) relatively more automatic than subsequent correction, but that the characterization of verbal behavior is not. If this is so, then the effect we have demonstrated (i.e., that peripheral tasks impair correction but not characterization) has a somewhat more limited range of application. Therefore, it seemed important to investigate the effects of cognitive busyness on inferences drawn from verbal behavior.

Method

Overview

Subjects listened to a male target read either a pro- or antiabortion speech that he had been assigned to write. Subjects in the one-task condition merely listened to the speech, whereas subjects in the two-task condition listened to the speech knowing that they would themselves be asked to write and read a speech later in the session. Finally, all subjects attempted to diagnose the target's true attitude toward abortion.

Subjects

The subjects were 37 male and 26 female students at the University of Texas at Austin who participated to fulfill a requirement of their introductory psychology course.

Instructions

On arrival at the laboratory subjects were greeted by a male experimenter who gave them a brief oral introduction to the experiment, provided them with complete written instructions, and then escorted each subject to a cubicle (equipped with an audio speaker) where the subject remained for the duration of the experiment.

The written instructions explained that the study concerned extemporaneous public speaking. Subjects were told that another subject (the target) had arrived 15 min earlier and had been assigned to write either a pro- or antiabortion speech. The target had ostensibly been given two newspaper editorials to help him generate arguments for the speech. Subjects were informed that in a few minutes they would hear (over the audio speaker) the target read his speech from the next room. The subject's job was to listen to this speech and diagnose the target's true attitude toward abortion. It was stressed that the task was difficult because the target had had no choice about which side of the issue he would defend; rather, the experimenter had randomly assigned the target to defend a pro- or antiabortion position. Thus, subjects were told, "You will have to use all of your skills and intuitions as a person perceiver to figure out what he really believes."

Cognitive Busyness Manipulation

Subjects in the one-task condition were given the preceding instructions and were then allowed to hear the target read either a pro- or antiabortion speech. In fact, the speeches had been previously recorded, and it was this recording that subjects heard.

Subjects in the two-task condition were given further instructions. These subjects were told that after diagnosing the target's true attitude toward abortion

> we will ask you and the other volunteer (the target) to switch booths, so that you are in the booth with the microphone and he is in the booth with the speaker. You will then be given 20 minutes to write a speech on an assigned topic, just like the other volunteer was.

Subjects were assured that they would also be given editorials to help them generate arguments for their speeches and were told "We will give you further instructions when the time comes for you to write and read your speech. For now, just concentrate on your duties as the listener." We suspected that despite these assurances, subjects who expected to give a speech would be preoccupied with thoughts about that upcoming event and would therefore have fewer cognitive resources to devote to the attitude attribution task.

Dependent Measures

After listening to the target read his anti- or proabortion speech, subjects attempted to diagnose the target's true attitude on a 13-point bipolar scale anchored with the phrases *essayist is opposed to (in favor of) legalized abortion.* Subjects then used similar bipolar scales to indicate (a) their certainty about the foregoing judgment, (b) their own attitudes toward abortion, (c) their estimates of the average student's attitude toward abortion, and (d) their memories of the position that the target had been assigned to defend. Finally, subjects were probed for suspicion, debriefed, and dismissed.

Table 4
Subjects' Perceptions of Target's Attitude Toward Abortion

	One task		Two tasks	
Target's essay	*M*	*n*	*M*	*n*
Proabortion	8.7	11	10.6	13
Antiabortion	5.4	13	4.2	10
Difference	3.3		6.4	

Note. Higher values indicate more proabortion attitudes.

Results and Discussion

Perceived Attitude

Subjects' ratings of the target's true attitude toward abortion were subjected to a 2 (essay: proabortion or antiabortion) × 2 (cognitive tasks: one or two) ANOVA that revealed a main effect of essay,[2] $F(1, 43) = 50.77$, $p < .001$, $MS_e = 5.44$. This effect was qualified, however, by the predicted Essay × Cognitive Tasks interaction, $F(1, 43) = 5.03$, $p < .03$. As Table 4 shows, all subjects attributed a correspondent attitude to the target; however, those subjects who expected to write a speech themselves were especially likely to do so (i.e., were especially unlikely to use the situational constraint information).

This is worthy of remark. Two-task subjects knew that they would be asked to endorse political positions with which they did not necessarily agree; thus, one might predict that these subjects would be particularly sensitive to the fact that identical constraints had been imposed on the target, and would therefore be likely to discount the target's behavior (cf. Miller, Jones, & Hinkle, 1981). As our hypothesis predicted, however, these subjects were less likely than one-task subjects to discount the target's behavior. As in Experiment 1, those subjects who would seem to have been in the best position to use situational constraint information were in fact the least likely to do so.

Other Measures

In the interest of brevity, the remaining measures may be summarized succinctly: Two-task and one-task subjects were equally certain about the inferences they drew and showed equally good memory for the position (pro- or antiabortion) of the essay they had heard (all Fs < 1). There was an irrelevant tendency for two-task subjects to report more antiabortion atti-

[2] Unfortunately, an experiment using a similar deception was being run concurrently with ours; thus, some of our subjects (all of whom participated in several experiments over the course of the semester) did not believe that the target was actually in an adjacent room. After the experiment was over the experimenter conducted an exhaustive probe for suspicion. In addition, all subjects completed a confidential questionnaire that assessed their suspicion, their knowledge of the hypothesis, and so on. Two raters (who had not been experimenters and who were blind to the subject's condition) separately coded each subject's comments and the experimenter's written notes. As a result, 8 suspicious subjects in the two-task condition and 8 suspicious subjects in the one-task condition were removed from the data set prior to analysis.

tudes for both themselves ($p < .07$) and the average student ($p < .04$), but this tendency occurred regardless of the speech (pro- or antiabortion) that subjects heard (for all Essay × Cognitive Tasks interactions, $F < 1.3$).

General Discussion

These experiments tell a simple story. When people are cognitively busy, one component of the person-perception process (correction) suffers more than another (characterization). In particular, cognitive rehearsal seems to impair the ability to use information about the situational constraints that may have influenced an actor's behavior; thus, perceivers who are busy performing rehearsal tasks may draw dispositional inferences that are not warranted and fail to draw dispositional inferences that are. It is not that cognitively busy perceivers simply fail to gather situational constraint information; in these studies, busy perceivers were more likely to have this information than were their less busy counterparts. Rather, busy perceivers seem unable to use the information they gather and remember so well.

One interpretation of these findings (and the one that we favor) is that correction requires a significant expenditure of resources and therefore cannot proceed on a limited cognitive budget. Of course, the interpretation of interference effects in general is currently the subject of much controversy (see Hirst & Kalmar, 1987, for a review). The resource metaphor is only one way to describe such effects and, unfortunately, no critical experiment seems capable of distinguishing between resource and other viable interpretations (e.g., structure or skill). Thus, although our data are entirely consistent with the notion of limited processing resources, they do not demand such an account. However, regardless of which metaphor one prefers, these data have several practical implications for our understanding of the person-perception process.

The Mystery of the Correspondence Bias

Person-perceivers often draw dispositional inferences from situationally induced behavior, and this tendency is so common as to warrant the label *fundamental attribution error* (Ross, 1977) or *correspondence bias* (Gilbert & Jones, 1986). Attempts to explain the pervasive bias toward dispositional inference have consistently fallen short, and none seem to provide a complete account of this tendency. The problem is that (with few exceptions) theorists have generally considered dispositional and situational attributions to be alternative consequences of a hypothetical process known as causal attribution.

But consider two different kinds of inferential processes. Perception is a lower order inferential process that occurs automatically and nonconsciously; perceptual inferences have a *given* quality about them because one is usually unaware of the processes by which the percept was produced (M. K. Johnson & Raye, 1981). Reasoning, however, is a higher order inferential process; reasoned inferences have a deliberate and conscious quality about them, and the steps by which they are achieved are easily articulated. Ordinary language captures this phenomenal distinction between higher and lower order inferences: One passively *has* a perception, whereas one actively *draws* an inference.

Our studies, and other recent evidence, suggest that correction is a species of reasoning (a higher order process), whereas characterization is a species of perception (a lower order process; Kassin & Baron, 1985; Lowe & Kassin, 1980; McArthur & Baron, 1983; Newtson, 1980; Winter & Uleman, 1984; Winter, Uleman, & Cunniff, 1985). If this is so, then correspondence bias can be seen as the failure to apply an inferential correction to the initial dispositional perceptions that perceivers cannot help but have (cf. J. T. Johnson, Jemmott, & Pettigrew, 1984; Quattrone, 1982). But why should the second step in this two-step process sometimes fail to occur? Our studies suggest a simple answer: The first step is a snap, but the second one's a doozy. When we recognize that characterizations occur more automatically than, and prior to, inferential corrections, the once mysterious correspondence bias becomes entirely explicable.

The Slow Death of the Person-Perception Process

Having argued that characterization is a lower order perceptual process rather than a higher order inferential process, we are prepared to offer some refinements to a general model of person perception. First, we concur with Quattrone's (1982) contention that attributions are a product of dispositional inferences that are followed by situational adjustments. However, the differences between the characterization and correction processes are of paramount importance. The present experiments argue that characterization is, in general, more automatic than correction. Elsewhere (Gilbert & Krull, 1988) we have argued that drawing dispositional inferences from nonverbal behavior (nonverbal characterization) is, in turn, more automatic than drawing dispositional inferences from verbal behavior (verbal characterization). By arranging these three processes in decreasing order of automaticity (i.e., nonverbal characterization, verbal characterization, and correction), we are in a position to make some predictions about their relative rates of degeneration and thereby to begin painting a portrait of the person perceiver.

Passive Perceivers

Passive perceivers who devote their entire attention to a person-perception task should, according to our model, successfully complete all three operations and thus should draw accurate inferences about others. Why, then, do the passive subjects of attributional research apparently defy this prediction by showing correspondence bias?

First, one of the rarely noted findings in Jones and Harris's (1967, p. 6) original demonstration of the correspondence bias is that there was 10 times more variance among the judgments of perceivers who observed constrained behavior than among the judgments of perceivers who observed unconstrained behavior. In other words, many of the passive perceivers who observed constrained behavior did not draw dispositional inferences about the target (i.e., the bias appeared as a difference between the aggregate scores of the high-variance conditions). This suggests that some passive perceivers do in fact complete all three of the operations in our model and are therefore able to draw accurate inferences from the situationally induced behavior of others.

But what about those who do show the bias? We suspect it is unusual for a person to devote his or her entire attention to any one task. During the dramatic climax of a film or the last movement of a great symphony, we are, for a moment, wholly absorbed by a single perceptual event. These experiences are, however, exceptional. More often we find ourselves attending primarily to one thing, but secondarily and simultaneously to a host of others (e.g., intrusive thoughts, uncomfortable chairs, full bladders, or the anchovy aficionado in the next seat). It is unlikely that the passive perceiver in the psychologist's laboratory ever becomes completely enraptured by a low-budget videotape or a typewritten page; rather, he or she attends to these mundane stimuli while also thinking about the unfamiliar surroundings, the lateness of the hour, or tomorrow's chemistry exam. Our second point, then, is that even so-called passive perceivers are often cognitively busy.

Can this minimal busyness account for a phenomenon as robust as the correspondence bias? To answer this question we must be clear about what the bias is, and moreover, what it is not. Some theorists have interpreted the bias to mean that passive perceivers do not use situational constraint information; this is simply wrong. As we noted earlier, some subjects do not show the bias at all. Furthermore, virtually all passive perceivers do use situational constraint information; what research shows is that some passive perceivers do not make sufficient use of this information, and this distinction is important. The correspondence bias is a very meaningful, very reliable, but inevitably very small effect. We suspect that the diminutive size of this bias reflects a slight impairment of the correction process that is caused by the low levels of cognitive busyness that even passive perceivers must normally endure.

Active Perceivers

In his acerbic critique of the field, Neisser (1980) chastised social psychologists for being "too quick to take detached perceivers and knowers as models of human nature" (p. 604). There are, of course, many instances in which people are merely passive perceivers of others: Almost everyone has an opinion about the president of the United States, although very few have met him. Nonetheless, Neisser's point is well-taken; much of what we know about others is in fact learned during social interaction. In what ways, then, do the judgments of active and passive perceivers differ?

As our research suggests, when perceivers begin to interact with others their cognitive resources may become depleted. The added complexities of interaction may begin to usurp increasing amounts of cognitive energy, impairing the relatively controlled correction process while leaving both the verbal and nonverbal characterization processes unimpaired. Thus, active perceivers often finish the person-perception task with their initial characterizations insufficiently corrected. The present experiments are examples of this effect.

As cognitive busyness increases further (either because of increasing interactional complexity or emerging peripheral demands), the next most fragile process—verbal characterization—may itself be impaired. Interestingly, this can have several different effects on the active perceiver's ultimate construal of the target. If the target's verbal and nonverbal behavior carry the same message, then the inability to draw dispositional inferences from verbal behavior should have little consequence. Such redundancy usually occurs when people are telling the truth. When people lie, however, their verbal and nonverbal behaviors are often at odds, and under these circumstances nonverbal expressions (both vocal and gestural) may reflect their inner characteristics more accurately than do their words (Depaulo, Stone, & Lassiter, 1985; Ekman & Friesen, 1969). In such cases, active perceivers may actually benefit from impairment of the verbal characterization process because they may be unable to use the deceptive information that is carried on the verbal channel. Consequently, the active perceiver's characterizations may be based largely on the target's highly diagnostic nonverbal behavior. Gilbert and Krull (1988) have shown precisely this effect.

Hyperactive Perceivers

Finally, one can imagine perceivers for whom the mechanics of interaction are so complex that all three operations are impaired. Such perceivers may, in essence, draw no inferences at all. People who are painfully shy, desperately bereft, socially inept, or otherwise preoccupied with their thoughts and actions may have virtually no resources to devote to the act of person-perception and thus may fail to draw dispositional inferences from both the verbal and nonverbal behavior of others. Unfortunately, little is known about the effects of severe cognitive busyness on the person-perception process, and we must not be too quick to extrapolate our findings. It may be, for example, that the characterization of nonverbal behavior is so thoroughly automatized that it cannot be impaired by other concurrent activities (cf. Kassin & Baron, 1985; McArthur & Baron, 1983).

Coda and Reprise

The foregoing discussion may seem to suggest that active perceivers are doomed to make errors because their perceptions are often faulty and their ability to correct these perceptions through reasoning is easily impaired. This conclusion is incorrect for several reasons. First, we have argued that when verbal and nonverbal behaviors are at odds, cognitive busyness can, strangely enough, lead active perceivers to make more normative inferences than do passive perceivers (Gilbert & Krull, 1988). In other words, there are occasional benefits to perceptual ignorance.

Second, and more important, it behooves us to remember that things are often what they appear to be: Tables often look flat because they are flat, and people often act aggressively because they are aggressive sorts. One reason why people can afford to make dispositional inferences at the perceptual level is that such inferences are at least pragmatically correct (see Gilbert, in press; Swann, 1984). Like any other heuristic assumption, the perceptual assumption of dispositional causation probably could not have evolved if it led to inappropriate conclusions on many occasions (Nisbett & Ross, 1980; Tversky & Kahneman, 1974). Third, when functioning in familiar environments, active perceivers may learn to make inferential corrections automatically. To the extent that the correction process can itself become automatized, active perceivers may become

relatively immune to the impairments engendered by cognitive busyness.

The present experiments should remind us that understanding others is a rather complex business: Some of what we come to believe about others is perceptually given and some is deliberately reasoned. Although these processes differ primarily in the speed with which they happen, in our awareness of their operation, and in their susceptibility to conscious control and disruption, these small differences may have profound implications for our ultimate construal of others. The more we learn about the ways in which social perceptions and social inferences form an admixture, the closer we shall move to a true understanding of social understanding itself.

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Received April 13, 1987
Revision received September 14, 1987
Accepted September 15, 1987 ■