It Takes Two to Tango: The Therapist, the Patient, and Automatic Aspects of Their In-Between

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In his target article Macmillan (this issue) presents a critical analysis of the fundamental rule of psychoanalysis and of the method of free association. We welcome this critical analysis of the foundations of psychoanalysis as the latter are—to a great extent—the cornerstones of modern psychology in general and modern therapy in particular. We feel that Macmillan's illuminating discussion of the constraints and limitations of Freud's fundamental rule and the process of free association results in an improved understanding of this important procedure.

Succinctly put, the rule, and the method of free association, are used to gather data that the therapist interprets and organizes in the process of finding the causes of, for example, neuroses. As stressed by Macmillan it is of utmost importance to the therapy that this process will not be affected by the therapist's expectations, goals, worries, or irrelevant thoughts. Traditionally, threats to this requirement were discussed in regard to conscious and unconscious demand characteristics. However, the (relatively) recent examination of higher-order automatic processes suggests multiple *unconscious* pathways through which the therapist's goals, expectations, and thoughts may affect every one of the aforementioned stages. In the following discussion, then, we would like to offer a sketch of what might the empirical research on automatic higher mental processes add to the critical examination of the foundations of psychoanalysis. We argue that (a) the therapist can cause the patient to behave in certain ways without either of them being aware of this causation, (b) the ways the therapist process information about the patient may be influenced by goals the therapist is unaware of, (c) the therapist's interpretation of information about the patient (or of the patient's behaviors) may be affected by factors he or she is unaware of, and lastly (d) a conscious effort by the therapist to correct for the unwarranted influences described previously might not always be successful, and sometimes may even be harmful.

Two introductory remarks. First, all of the data we present below were gathered in laboratory experiments, whose nature is very different from that of therapeutic sessions. We see no reason to question the validity of the implications we draw from the former to the latter, but we acknowledge that this question is not examined here. Second, due to space constraints we could not thoroughly examine, demonstrate, and discuss each of the points we make below. We have tried, however, to illustrate each point with the most relevant and recent evidence available.

Unconscious Determination of Behavior

The fact that cognitive processes may occur without awareness is far from new. However, it is only in the last decade that social psychologists have demonstrated (time and again) that overt, complex behaviors can be nonconsciously triggered by cues in one's environment. For example, Bargh, Chen, and Burrows (1996, Experiment 1) primed different groups of participants with words related either to rudeness or to politeness. Participants were instructed that when they finish the "language test" (i.e., the priming session) they are to come out into the hallway and find the experimenter to receive the second task of the study. When participants looked for the experimenter, however, he was engaged in a staged conversation with another person, a conversation that lasted until the participant interrupted it (or until 10 min had passed). As hypothesized, the priming stage had a strong and significant effect on participants' behavior: 63 percent of those in the rudeness condition interrupted the conversation, 37 percent of the participants in a control condition did so, but only 17 percent of those in the polite priming condition interrupted. Needless to say, participants were not aware of the fact that they had been primed, nor were they aware of the relation between the first session of the experiment and their following behavior.

Similar findings were obtained with stereotypes. Thus, Dijksterhuis and van Knippenberg (1998) primed subjects with either the professor stereotype or the soccer hooligan stereotype. In a second, ostensibly unrelated experiment, their participants answered questions from Trivial Pursuit. Professor-primed participants answered more of the items correctly than did hooligan-primed participants, thus living up to the stereotypes they had been primed with. More recent research shows that the environmental cues that nonconsciously affect our behaviors do not have to be verbal: As shown by Chartrand and Bargh (1999), people mimic other people's behaviors without being aware of the sources for their behaviors (for a recent review, see Bargh & Ferguson, 2000).

Implication 1: The patient's (in-session) behaviors may be unconsciously determined by the therapist's verbal and non-verbal behaviors.

Unconscious Determination of Interpretation

That automatic, nonconscious processes affect the interpretation of ambiguous behaviors is one of the most robust findings in the person perception literature (for recent reviews, see Bargh, 1989, 1994; Higgins, 1989, 1996; Wyer & Srull, 1989). In their classic demonstration of this effect, Higgins, Rholes, and Jones (1977) presented participants with verbal information that depicted ambiguous behaviors of a target. The target's behaviors could have been interpreted as either adventurous or reckless. Prior to their reading the verbal information and assessing the target's traits, participants were primed either with the trait adventurous or with the trait reckless. As hypothesized, participants who had been primed with *reckless* assessed the target as more reckless than participants who had been primed with *adventurous*—and vice versa. Similar findings were obtained with stereotypes (e.g., Devine, 1989) and exemplars (e.g., Stapel & Koomen, 1998).

The automatic effects of accessible knowledge on interpretations of ambiguous behaviors are a cornerstone of social-cognition theories. Thus, for example, Trope (1986) argued that prior knowledge and current context take part in the automatic, effortless process of identifying a behavior, especially if the behavioral information is ambiguous. Whether crying signifies extreme happiness or utmost sadness is dependent, claimed Trope, on whether we see the crying person in a wedding or in a hospital. This identification is automatic and probably unaware, claimed Trope. Only later stages of information processing, that are much more effort consuming, allow us to infer whether the crying person was actually sad or happy. If mental resources are scant, or if motivation lacks, we might not get to the latter stage at all. Given that almost all social and personality information about a person is at least somewhat ambiguous, these automatic effects can have grave implications for interpretations suggested in clinical situations.

Implication 2: Accessible knowledge in the therapist's mind may influence the interpretation she gives to the patient's (ambiguous) behaviors.

Unconscious Organization of Data

The goals one consciously entertains affect the way he or she organizes and remembers incoming information. For example, when the goal of the social perceiver is to create an impression of the person he or she interacts with, he or she will end up with information that is more organized and better remembered, in comparison to a social perceiver whose goal is to memorize the same information (Hamilton, Katz, & Leirer, 1980). These effects, however, are not limited to goals one is conscious of. Thus, Chartrand and Bargh (1996) primed participants with either a memorization goal or an impression formation goal. Then, in an ostensibly unrelated task, participants read 16 behaviors of a target person (under instructions to read the behaviors "because we will ask you questions about them later"). The results replicated those of the earlier studies that explicitly manipulated processing goals: Participants with the nonconscious impression formation goal remembered more of the behaviors and organized them to a greater extent in memory. Needless to say, participants were not aware of the fact that they had been primed, nor were they aware of the relations between the two parts of the study.

Implication 3: The therapist may organize the information in his or her memory according to his or her goals, without being aware of either the goals or their influence on the organization of information.

One might retort, however, that although behaviors, their interpretation, and the organization of information in memory can be nonconsciously affected by the therapist, at least the crucial stage of determining *causes* is conscious and controlled, and hence less vulnerable. Research conducted in our laboratory, however, shows that this does not have to be the case: In a recent series of studies we have shown that people infer causes without awareness of doing so, and that these inferred causes are stored in long-term memory (Hassin, Bargh, & Uleman, 2001).

Does Consciousness Help?

Can people decide to not be influenced by automatic processes of the kind previously discussed? Can awareness of these kinds of influences help one in avoiding them? Sadly, it seems that this is not always the case. As much research in the last decade suggests, conscious efforts to ignore or correct for unwanted automatic influences are not always successful.

Tim Wilson and Nancy Brekke (1994) called the process whereby a person has an unwanted judgment, emotion, or behavior because of mental processing that is unconscious or uncontrollable a "mental contamination". For mental contaminations *not* to occur, they argue, a person has to be (a) aware of the unwanted processing, (b) motivated to correct it, (c) aware of the direction and magnitude of the bias, and (d) able to adjust his or her response. Based on a review of the literature the authors conclude that "we are rather pessimistic about people's ability to avoid or correct for mental contaminations" (p. 120).

The experimental demonstrations of mental contaminations, and of failures to correct them, abound. Thus, for example, one recent demonstration was presented by Hassin and Trope (2000), who examined the effects of faces on judgments and decisions. In their Study 4, Hassin and Trope showed that physiognomy—that is, the personality information conveyed in faces—affected simulations of personnel selection decisions, even when participants had relatively elaborate verbal evaluations of the candidates. Moreover, similar results were obtained with a group of participants that were specifically asked to ignore faces and to base their decisions solely on verbal evaluations.

Mental contaminations, moreover, are not only hard to ignore or to correct for. According to at least one influential theory (Wegner, 1994), the monitoring process that helps us in preventing mental contaminations may sometimes "act subtly yet consistently in a direction precisely opposite the intended control" (p. 34). Thus, for example, try to stop reading after this sentence and not to think of Jung for a couple of minutes. As Wegner (1994; Wegner & Bargh, 1999) showed, when we try to suppress thoughts we might end up with more of the thoughts we are trying to suppress.

Moreover, even a momentary victory in the battle for suppressing is not enough. Suppressed thoughts, the literature shows, may "rebound". Thus, for example, Macrae, Bodenhausen, Milne, and Jetten (1994) asked one group of participants to suppress stereotype-related thoughts while imagining the life of a person belonging to a stereotyped group. Participants in a control condition were not asked to suppress their thoughts. Later in the study both groups were asked to write their impressions of another person from the stereotyped group. Participants in the suppression condition formed more stereotypical impression of the second target, thus revealing that thought suppression on one task may enhance the effects of these thoughts on another task.

Implication 4: The therapist's effort to avoid mental contaminations may not be successful. Moreover, these efforts might enhance the (unwarranted) influences of automatic, nonconscious processes.

Conclusion

If one incorporates the four implications we have suggested, this is the picture that he or she gets: The therapist—by his or her verbal and non-verbal behaviors—may unconsciously drive the patient to behave in certain ways (in session, and maybe even off session). These behaviors—as well as any other behaviors of the patient—may be interpreted by the therapist in light of the goals and concepts currently activated in his or her unconscious. In addition, she might infer the causes of the (interpreted) behaviors without being aware of doing so and arrange all the information previously mentioned according to his or her unconscious goals. Lastly, conscious effort to avoid the aforementioned unwarranted automatic influences (and many others we have not discussed here, or do not know of yet) is likely to not be very effective, and may even enhance these influences.

Note

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Freud's Direction

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Macmillan's (this issue) account of Freud is constructed with considerable insight. His comments are serious and only miss the point by virtue of the omission of a series of components of Freud's work: omissions that create a puzzling orientation for the direction that Freud gave to psychoanalysis.

The problems of free association and interpretation are two of the most central concepts around which psychoanalysis is organised. The terminology that Macmillan uses to describe them is mathematical—limit, continuity, sequence, gap, connection, and logical relation—and this in itself is already a step forward from the attempts to formulate Freud as "lacking in objectivity." There are strong reasons for holding that Freud was committed to the existence of a formal (mathematical) structuring of the unconscious, but the detail of this is precisely one of the orientations whose influence on Freud Macmillan omits.

A number of clinicians in the history of the psychoanalytical movement have developed the notion that the structure of the unconscious is closely related to the structure of mathematics. Wilfred Bion (1994) in Britain, Imre Hermann (1980) in Hungary, and Jacques Lacan (1975) in France have all produced important contributions in supporting this claim: The claim itself has a prehistory, and its influence is one of the themes that Macmillan ignores. Herbart's influence on Freud has been demonstrated in a number of places, most recently in Burgoyne and Leader (1988/2000). Herbart's proposal to use the structure of mathematics to investigate the structure of the mind led Riemann to develop some new mathematics, and arguably led to a more persistent influence on the important school of mathematics to develop in Göttingen (Ferreiros, 1999). That there is a close relation between the structure of the unconscious and the foundations of mathematics is well brought out by the language of Macmillan's text. However the clinicians whom he proposes as strongly determining the direction of Freud's work are those who are least capable of maintaining such a claim.

Any influence of Meynert's work on Freud was early, and unlikely to have been continued for very long. In attempting to demonstrate that "Freud himself never seems to have ceased using Meynert's ... concepts" Macmillan (this issue) cites Freud texts with datings of 1888 and 1891—a point at which psychoanalysis could barely yet claim to have been formulated, and a moment in time when Freud had close to a half a century of working life remaining to him. If evidence exists of a persistent influence of this kind, then this is not it.

The most important of the relations that Macmillan claims to exist between Meynert's work and Freud's is exactly on the right track—in terms of determining central problems of Freud's orientation—but wrongly formulated. In attempting to support his claim as to the ways in which Freud's direction is supposed to be parallel to that of Meynert, Macmillan (this issue) quotes Freud: "the linkage made by a *logical thread* [italics added] ... reaches as far as the *nucleus* [italics added]" (Breuer & Freud, 1895/1955, p. 289). Logical structure is certainly one of Freud's central concerns, but there is no evidence whatsoever that these logical themes occurred in Freud as a result of a dependency on Meynert—this is simply asserted by Macmillan. Are there other plausible candidates for an influence on Freud in the field of logic? Yes, at the very beginning