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The Voicer/Nonvoicer Distinction
A Dimension in the Experience of Conscious Thought

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THE VOICER/NONVOICER DISTINCTION
A DIMENSION IN THE EXPERIENCE OF CONSCIOUS THOUGHT

By
Kenneth L. Salzman

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ABSTRACT

THE VOICER/NONVOICER DISTINCTION A DIMENSION IN THE EXPERIENCE OF CONSCIOUS THOUGHT

By

Kenneth L. Salzman

People differ radically in how they experience conscious mental life. Some experience explicit dialogue between parts of their personality; others experience mental life alone. The most common form of dialogue is an internal "voice" playing the role of conscience. However, for some the internal voice is not a conscience and some have more than one internal voice. The rest of us have no internal voice at all.

A review of the psychological literature reveals an articulate replication of ordinary experience. Some writers, including Freud and Klein, describe "superego" in the same graphic personal terms used by voicers. Others, including Fenichel and Kernberg, appear as nonvoicers, describing superego in terms which are vague and metaphorical (e.g. as the experience of moral or ethical thought). They reconcile their own experience with Freud's writings by accepting the universality of superego but treating superego as an unconscious mechanism.

Across three empirical studies, an instrument to assess people as voicer or nonvoicer was developed and

evaluated. In the final instrument, people read three different written descriptions of the voicer/nonvoicer distinction. Self assessment based on all three descriptions has a reliability of 0.93. Eighty percent of respondents describe their self assessment as "Sure" or "Very sure". In a college population, the split between voicers and nonvoicers is nearly even.

Two empirical studies asked developmental questions regarding hypotheses about the etiology of the internal voice. (E.g., would children be more likely to develop a conscience if their parents were strict or angry?) No differences were found between voicers and nonvoicers in these studies.

The last empirical study focussed on causal consequences of having an internal voice. Most voicers were found to be high in need for approval, although a minority existed who were low in need for approval. Voicers high in need for approval try to do what is expected of them; they are self-conscious, afraid of authority figures, and slow and hesitant about decision making. Voicers low in need for approval perceive themselves as socially dominant; they bluff others, are argumentative, and do not hesitate to break rules.

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1983

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CHAPTER I

INTRODUCTION AND REVIEW OF THE LITERATURE

This thesis reports three studies of a distinction in the most basic aspect of phenomenal experience: the way that people experience their thought process. Specifically, this thesis measures and explores the distinction between people who experience thought as a dialogue and those people for whom the thought experience is a monologue. For example, there is a difference in how people experience conscience. Some people experience conscience as an "internal voice" which tells them what to do and may even berate them if they do wrong. Others experience conflict as they review the consequences of some choice, but never have the feeling of a dialogue between parts of the self.

I was first told of this distinction by a friend who had been questioning all of his friends and neighbors about their experience. My friend had come across the distinction when he jokingly suggested a rather naughty course of action to a friend of his. She replied that she could not do such a thing because her conscience would torture her for days.

Upon questioning, my friend learned that she experienced conscience as a "little voice" which, quite

unbidden and not easily subdued, berated and insulted her for her misbehavior. My friend had never experienced such a thing. He began asking other people about their experiences and discovered that about half of his acquaintances had a "little voice" and half did not.

My friend spoke to me about it and I reported no voicing experience. I then began asking my friends and quickly became convinced that there were two patterns of experience in conscious thought. Many reported their conscious experience in a manner which sounded much like my own. Of those who did not, not all identified with the specific description of an accusatory and berating conscience, yet they readily reported internal verbal dialogues which sounded similar to the voicing phenomenon and quite alien to my own experience of conscious thought. Each new person provided new information or new descriptions of the voicing experience or the experience of conscious thought without a voicing phenomenon. I decided that empirical research was needed to make sure that the distinction was not fabricated in the course of motivated conversation and to test some of the hypotheses that had arisen from discussion of anecdotal experiences.

Literature Search

I began the project by scanning and then searching the psychological literature for something that might have seemed sensitive to a "voicer/nonvoicer" distinction. I have still found no such reference. There are references to conscience, superego, verbal vs. nonverbal thoughts and even internal dialogues, but always these are described as universal phenomena rather than descriptions of a dichotomy of experience. It was as if psychologists were mirroring our findings among our friends: voicers sometimes study or refer to voicer phenomena but fail to recognize that there are nonvoicers, and nonvoicers simply never consider the possibility of a true internal dialogue.

Of the few references to what seemed to be the voicing phenomenon, the clearest appear in the Gestalt Therapy literature. Kempler (1973) referred to the need for "coordinated awareness" and symptoms being created by "one part of the personality refusing to accept another part." Kempler, however, never referred to this process as a "voice" or internal verbal process. Bauer (1976) did, however, stating that introjected aspects of others give rise to "internal dialogues" and that these "internal objects" must be accepted and integrated in the "total self system".

There is no indication, however, that these

conflicts and internal dialogues are restricted to only a part of the population. To the contrary, dialogues are described as universally held characteristics and their resolution is said to result in the kind of awareness which has been reported by nonvoicers. The sense that internal dialogues, particularly negative ones, might be present in psychologically stable and healthy persons and that they might be entirely absent in very distressed individuals is not apparent in the literature.

In the Transaction Analysis school, Theobald (1974) put forth the game "Hassle" to demonstrate that the criteria for "games may be met in transactions involving internal dialogue alone". Hassle is described as a "prolonged debate" in which a decision making process is blocked by a constant recycling of the issues involved. Theobald did not make clear, however, whether he perceived this internal dialogue as a conscious process or whether he used the term in a metaphorical sense. Furthermore, he described this process as a pathological one which interferes with effective functioning rather than being a part of it.

Other phenomena which may be related to the voicing phenomenon are hallucinatory experiences, multiple personality, and psychoses. While the case descriptions are often quite close to those made by

voicers I have interviewed, they inevitably link the voicing phenomenon to the pathology. Among our friends, however, most voicers show no evidence of pathology and some nonvoicers do.

Another concept similar to voicing is Jaynes' (1976) description of the bicameral mind. Jaynes described the bicameral mind as a condition of consciousness marked by the absence of introspective thought and dominated by auditory phenomena originating from the right hemisphere of the brain. Jaynes' thesis states that there was a time when all human motivation during times of stress or in novel situations came from these phenomena. These auditory signals took the form of voices from within which gave orders and instructions, guiding the individual in their behavior. Jaynes stated that these voices were believed to be those of the gods, and that they were characterized as without mercy or pity. His belief is that true consciousness did not appear until the voices receded as a result of the excesses of destruction which they engendered in the world.

According to Jaynes, with the coming of this true consciousness there was no longer a need or place for the voices and they disappeared entirely, save for contemporary throwbacks such as schizophrenia, hypnotism, and religious frenzy. He argued that

civilization is impossible to the bicameral mind. It was only after the demise of the bicameral mind that humans were forced to introspect and take responsibility for their behavior. The idea of a voicing phenomenon such as we are investigating in modern, conscious humans is directly contrary to Jaynes' theory.

The psychoanalytic concepts of introjection, identification, conscience and superego seem related to voicing, although the level of ambiguity connected with these terms makes it difficult to establish this relationship with certainty. Different writers give considerably different treatments and emphases to these concepts, sometimes to the extent that it is not clear whether they are referring to the same concept at all. In the literature reviewed, there were no clear references to any phenomenon which resembled the voicing phenomenon and was not described as a universal trait.

The concepts of identification and introjection seemed at first to be appropriate referents for the voicing phenomenon. They describe the dynamic processes whereby the traits and beliefs of others can be incorporated into an individual's structure, and in particular the means by which parental superego functions are transformed into the child's superego.

Sanford (1955) pointed out, however, that there has been little uniformity in the use of the terms identification and introjection, and it is not clear whether that situation has been much improved over the last quarter century. The range of definition and use of these terms makes it difficult to compare the phenomena which they describe and harder still to relate them to the phenomenon we are studying. The fact that these terms describe processes leading to states of being, rather than the actual states of being, resulted in considerable uncertainty as to their relationship to the voicing phenomenon. More information was needed regarding the state itself before much could be said about the means by which it was brought about.

The terms conscience and superego are more often used in describing behavior and experienced phenomena, and therefore seemed more likely to be used to describe an observed relationship to the voicer/nonvoicer distinction. I hoped that the literature regarding conscience and superego would point to an earlier recognition of the kind of dichotomy we were observing, or at least shed some light on the kind of experience being reported by those acknowledging a voicing phenomenon. There was, however, no such dichotomy listed with regard to superego or conscience. Worse

yet, the literature seemed to reflect a considerable range of approach to and treatment of these concepts, to the point where different authors appeared to be talking about different concepts altogether. I will attempt to review some of these approaches and how they differ with regard to the voicing phenomenon.

In fictional literature, conscience is sometimes referred to as a "little voice" or anthropomorphized as a little angel on one's shoulder (or a cricket or fairy godmother, all of which speak). There is even a classic Disney sequence where a cartoon character has two such "voices", one a helpful advisor and the other an impish tempter. Is this merely a fantastical representation of the abstract contest between good and evil, or is the author of the sequence simply giving image and form to a personal phenomenal process? Certainly these images were similar to the descriptions we had obtained from the voicers in our group.

Freud's writings appear to closely link the concepts of conscience and superego, and Freud is often quite explicit with regard to the experience of the phenomenon of conscience. Conscience is "a special institution of the mind...it constantly watches the real ego...."(1959, vol. 4, p. 52) and is thus both part of yet apart from the ego. Conscience is, to Freud, a major facet of mental life: "...we shall

count it, along with censorship of consciousness and the testing of reality, among the great institutions of the ego..."(1959, vol. 4, p. 157). It is not clear that Freud made any distinction between conscience and superego function, save perhaps that the former may be only a special case of the latter. Schafer (1960) states that

"Although originally synonymous with the superego, the ego ideal was ultimately conceptualized by Freud in a narrower sense as one of its functions along with self-observation, conscience, censorship, and the instigation of defense."

Freud has repeated references to the experiencing of conscience or superego: (emphases are mine)

In masochism: "the sadism of the superego is for the most part acutely perceived consciously..."(1959, vol. 2, p. 267)

In the paranoid state: "Patients of this sort complain that all their thoughts are known and their actions watched and overlooked; they are informed of the functioning of this mental institution by voices which characteristically speak to them in the third person....This complaint is justified--it describes the truth; a power of this kind, watching, discovering and criticizing all our intentions does really exist; indeed, it exists within every one of us in normal life. The delusion of being watched presents it in a regressive form..."(1959, vol. 4, pp. 52-53)

"The voices, as well as the indefinite number of speakers, are brought into the foreground again by the disease, and so the evolution of conscience is regressively reproduced."(1959, vol. 4, p. 53)

In melancholia: "...in this condition one part of the ego sets itself over against the

other, judges it critically, and, as it were, looks upon it as an object...the critical institution in the mind which is here split off from the ego (demonstrates) its independence in other circumstances...it is the mental faculty called conscience that we are thus recognizing...."(1959, vol. 4, p. 157)

Freud seemed to conceptualize conscience, and perhaps much of the superego function, as a conscious process; a process which could and would be perceived by the individual in an immediate sense. This is not the case with other authors. For example, Freud stated that the superego looks for opportunities in external reality through which it may inflict punishment (1930, p. 79), a statement which describes well some of the voicing experience. Schafer, however, explained that it is more consistent

"to limit the function of the superego in this respect to the testing of certain aspects of inner reality and to see that outward search as carried on by other ego functions in the service of the need for punishment induced by the superego."(1960, footnote p. 166)

Where Freud had described the superego as taking explicit action, Schafer described it as operating at a much more subtle and even unconscious level. Freud's description of the superego and conscience seem to relate well to the descriptions given by voicers. Schafer's "rewording" seems to better fit the descriptions of conscience given by nonvoicers. Schafer, however, did not seem to feel that he had made

any reinterpretation of Freud's words.

This kind of rewording was not limited to Schafer. Brenner (1974) saw conscience and the other functions of the superego as "largely or completely unconscious." (p. 112) Where the voicers describe harshly critical haranguing from the voicing phenomenon, and Freud talked of a "division ... between the critical faculty and the rest of the ego" (1959, vol. 4, footnote p. 388), Brenner described conscience in a much more abstract sense:

"Disapproval by the superego has some consequences which are conscious and hence familiar to us and others which are unconscious.... For example, we are all familiar with the painful feelings of tension which we call guilt or remorse, and we have no hesitation in connecting it with the operation of the superego ... feelings of joy or happiness and self-satisfaction (may) be the result of the superego's approval.... Such a 'virtuous' glow, like its opposite, a sense of guilt, is a familiar phenomenon." (p. 120)

Brenner's "painful feelings of tension" are, indeed, the kind of description of guilt or conscience reported by nonvoicers, but he failed to make any mention of the acutely perceived harassment the voicer reports. Brenner noted that "Freud made ... observations ... that the superego bears a close relationship to auditory memories and in particular to memories of the spoken word." (p. 112) He went on to nullify what might otherwise have been a rather close

reference to the voicing phenomenon by stating,

"Some intuitive perception of this fact is probably responsible for the common figure of speech which refers to the 'voice of conscience'."(p. 112)

The idea of a "voice of conscience" is far from an intuitive or abstract concept for the voicer.

We may be observing here in Freud, Schafer, and Brenner a phenomenon which also occurred among our friends: those without the experience of the voicing used the same language as those who did experience it, yet they were referring to quite different concepts. Where the voicer refers to explicit, consciously perceived events, the nonvoicer is describing implicit, abstract processes. Since the words used were the same, neither had any reason to question that the speaker was referring to the same experience.

Prior to this study, my readings of Freud had never suggested to me that a voicing phenomenon existed, nor is it clear to me now that Freud thought it was so. The voicers among my friends, however, state that they always assumed that Freud was referring to voicing in his discussions of conscience, and that they had some difficulty understanding why so many of the later writers kept using such abstract terminology for the concepts.

I began scanning standard texts specifically for

references to the manner in which guilt, conscience or superego function are perceived, and the relationship described between the ego and the superego. I found references which seemed to be suggestive of the differences in meaning described above, but no statement which described clearly either the voicer's explicit perception or the nonvoicer's implicit sense. In all of the discussions of superego and conscience, there was no reference to a difference in kind, nature or experiencing of these functions in the population at large.

Fenichel (1945) described:

"The 'inner punishment performed by the superego' is felt as an extremely painful decrease in self-esteem and in extreme cases as a feeling of annihilation.... The fear of being punished ... by the superego is the fear of annihilation through lack of these (narcissistic) supplies." (p. 105)

There is no sense here of a punishing voice, an explicit and conscious abuser within. Nor is there later when he stated, "Self-esteem is no longer regulated by approval or rejection by external objects, but rather by the feeling of having done or not having done the right thing." (p. 106)

Fenichel noted Freud's and Abraham's position, "Thus the commands of the superego as a rule are verbalized." (p. 107) He also quoted Reik's reference to superego, "'The step within the ego' is felt by the

child by 'hearing the inner voice of conscience'."(p. 107) Both of these statements, he felt, referred to the level and manner in which the superego was constructed, rather than to the manner in which it was experienced. He later translated this verbalization of commands into a more abstract form: "Everyone continually experiences slight 'conscience signals' which regulate behavior and which are of far greater importance as constituents of the so-called mood than general anxiety signals are."(p. 136) The only non-quoted direct references made by Fenichel to internal voicing is in his discussions of schizophrenia.

Klein used distinctively different language in describing the experiencing of superego behavior. Her language evoked more concrete images of the conscience and she was more explicit regarding the conscious nature of the conscience.

"... the person's conscience is a precipitate or representative of his early relations to his parents ... an agency which advances against the rest of his ego certain requirements, reproaches and admonitions.... Freud has since shown that the operation of this superego is not limited to the conscious mind, is not only what is meant by conscience."(1949, p. 248)

"... this early turning of one part of the mind against the other -- this inherent tendency to self-condemnation, which is the root of conscience ..." (1975a, p. 321)

"An essential factor in repression is the reprimanding and prohibiting aspect of the super-ego ..." (1975a, p. 86)

It is possible to interpret her language as being metaphorical, yet when her descriptions are taken in a literal sense, they match closely the types of descriptions given by voicers of their experience.

"The persecutions and demands of bad internalized objects; the attacks of such objects upon one another; the urgent necessity to fulfill the very strict demands of the 'good objects' and to protect and placate them within the ego ... all these factors combine to produce in the ego a sense of being prey to contradictory and impossible claims from within, a condition which is felt as a bad conscience. The earliest utterances of conscience are associated with persecution by bad objects." (1975b, p. 267-268)

"The ego, supported by the internalized good object and strengthened by the identification with it, projects a portion of the death instinct into that part of itself which it has split off -- a part which thus comes to be in opposition to the rest of the ego and forms the basis of the super-ego. The super-ego thus acquires both protective and threatening qualities. As the process of integration ... goes on, the death instinct is bound, up to a point, by the super-ego. In the process of binding, the death instinct influences the aspects of the good objects contained in the super-ego, with the result that the action of the super-ego ranges from restraint of hate and destructive impulses, protection of the good object and self-criticism, to threats, inhibitory complaints and persecution.... To some extent, when development goes well, the super-ego is largely felt as helpful and does not operate as too harsh a conscience." (1975a, p. 240)

One of her major breaks with the traditional

analytic approaches was over the issue of when the superego developed as a structure. In particular, she saw the sources of the superego, or more specifically the conscience, as being rather apparent and distinct. The traditional, and more abstract, view was that the superego was an essentially unconscious structure growing out of the resolution of the Oedipal crisis. The sources of the superego were themselves more abstract and vague; certainly not in the form of voices within.

"... the superego precedes the Oedipus complex and is initiated by the introjection of the primal object. The super-ego maintains its connection with the other parts of the ego through having internalized different aspects of the same good object..." (1975a, p. 245)

"... the changes characteristic of the onset of the latency period could be summarized as follows: the relation with the parents is more secure; the introjected parents approximate more closely to the picture of the real parents; their standards, their admonitions and prohibitions are accepted and internalized and therefore the repression of the Oedipus desires is more effective. All this represents a climax of the super-ego development which is the result of a process extending over the first years of life." (1975a, p. 87)

"Fenichel has applied certain criteria which differentiate the 'precursors of the superego' ... from the superego itself. These precursors exist, he thinks, in a scattered state and independently of one another, and lack the unity, the severity, the opposition to the ego, the quality of being unconscious.... In my opinion such a differentiation is incorrect in several

respects ... it is precisely the early superego which is especially severe ... in no period of life is the opposition between ego and superego so strong as in early childhood ... the commands and prohibitions of the superego are no less unconscious in the small child than in the adult ... they are by no means identical with the commands that come from its real objects."(1948, p. 198-199)

There is, however, no sense in Klein's writings that these characteristics of superego functioning are experienced by only part of the population. Nothing in her works seems to suggest the existence of nonvoicers, those who simply do not experience a phenomenon of internal commands and prohibitions in an explicit sense.

Greenson (1972) made no reference to conscience or any form of overtly verbal construct. When he described the superego, he did so in language that carried no sense of one aspect of the self commanding or persecuting another. He referred to feelings rather than actions or verbalizations within the mind.

"It is the superego that makes the ego feel guilty even for the symbolic and distorted discharges, so that they are felt consciously as essentially painful. The superego may also enter the neurotic conflict by becoming regressively re-institutionalized, so that the self-reproaches take on a driveline quality."(p. 18)

Object relations theorists have concentrated considerable attention on the internalization of objects, both good and bad. They seemed a likely

source of comment on the voicing phenomenon, especially since most object-relations theorists give much credit to Klein as a major source of the principle ideas. These authors, however, either seemed not to recognize voicing as an explicitly experienced phenomenon, or else gave no sense that such phenomena were not universal.

Masterson (1976) makes reference to a "sadistically cruel superego that persecutes the ego until it breaks down"(p. 39), but does so only in describing psychotic depression. His use of the term "sadistically cruel superego" and of the term "persecutes" may be a reference to an explicitly experienced voicing phenomenon, but may as well be only the use of what have, since Freud and more so since Klein, become standard forms of reference to the superego. This is an example of how the voicing phenomenon could exist and be recognized by some authors and ignored by others, yet with neither being aware of the difference in their observations. What serves as a concrete term for one author is an abstract or allegorical term for the other.

Fairbairn (1976) restructured Freud's conception of the superego, incorporating most superego functions into an aspect of the ego. This aspect was labelled first the "internal saboteur" and then renamed the

"antilibidinal ego". Fairbairn's discussions of the internal saboteur all suggest that it is an unconscious structure (p. 108) and unrelated to guilt. The internal saboteur is not connected to the "moral sense", which remained the product of the superego. Guntrip (1976) described the relationship between Freud's superego and Fairbairn's antilibidinal ego.

"This Fairbairn at first called the internal saboteur, and then the antilibidinal ego.... It is Freud's 'sadistic superego' ... these functionings ... become mainly repressed and unconscious"; "while the conflict between the antilibidinal and the libidinal egos is repressed and kept unconscious so far as possible ... its effects can and do seep through into consciousness as immature needs, fears, loves and hates, and symptoms.... In these patients, hostile self-attack and punishing self-mastery are quite visible." (p. 188-189)

"Freud's term 'superego' and Fairbairn's term 'antilibidinal ego' are valuable alternative terms, each useful in different contexts since they denote the same broad area of psychic functioning (that of internalized parental and social controls which have become self-controls), though they are not exactly identical. 'Superego' covers a wider range of phenomena than does 'antilibidinal ego'. Roughly we may say that 'superego' includes both 'sadism turned against the self' and 'mature morality'.... There is, as it were, a 'superego' larger than our own individual ego, which should be represented inside our psychic organization, not as a harsh tyrant but as a supportive and friendly authority. However, to whatever degree anxiety and illness pervades our inner being, this internal authority is a cruel dictator in which all our rage and hate of a bad outer world has become concentrated into self-suppression and in particular aimed at

the suppression of our own libidinal needs. For this particular aspect of the Freudian 'superego' the term proposed by Fairbairn, 'antilibidinal ego', ... is entirely accurate.... The 'antilibidinal ego' is specifically 'against needs' and is basically an internalization of the outer world's intolerance of the needy infant who is regarded as a nuisance to be kept quiet." (p. 182-183)

Thus Guntrip (1976) associates "antilibidinal ego" with the more sadistic and suppressive aspects of Freud's "superego", an introject of bad objects from the outer world. Guntrip states that "So far as Fairbairn's object-relations theory is concerned, internal objects belong properly to the realm of the psychopathological, since they are internalized in the first instance because they are bad objects." (p. 387)

Guntrip makes specific reference to "... the angry or over-authoritarian mother of a later period (i.e. possibly from the cleanliness training period onwards) who is experienced by the child as aggressive and becomes the source of a sadistic 'superego' ..." (p. 106), thus both identifying a time frame for the precursors to the superego and characterizing an antecedent variable which is, at least in part, responsible for the formation of a sadistic superego. He also gives an account of the experienced nature of this structure

"Another patient ... exhibited the same self-persecutory set-up verbally. Whenever

she made any slight mistake, she would begin shouting at herself at the top of her voice: 'You stupid thing! Why don't you think! You ought to have known better!' and so on, which were in fact the very words her mother used against her in daily nagging." (p. 191)

These are also the "very words" reported by many voicers as the sort of self-condemnation and criticism they experience internally. Guntrip does not, however, explicitly acknowledge that these verbal assaults occur internally. In addition, he suggests that they are manifestations of pathological or ego-weak conditions resulting from the introjection of the bad-object parent.

Kohut (1971) seems to approach this issue in a similar manner to Guntrip. On the one hand, he makes references to prohibitions and admonitions of the superego,

"... those aspects of the superego which direct toward the ego the commands and prohibitions, the praise, scolding, and punishment that the parents had formerly directed toward the child." (p. 41)

Yet Kohut also seems to suggest that these functions are to be considered as abstract concepts rather than explicit experiences. It is under circumstances where the basic structure is not functioning properly that these concepts begin to take on a more direct and immediate character.

"Ego, id, and superego are the constituents of a specific, high-level, i.e. experience

distant, abstraction in psychoanalysis ..."
(p. iv)

"Just as the superego is the massively introjected internal replica of the oedipal object, so is the basic fabric of the ego composed of innumerable internal replicas of aspects of the preoedipal object.... The innumerable, small, nontraumatic disappointments in the perfection of the preoedipal object account similarly for the admixture of prestige (and thus power) enjoyed by each of the minute prohibitions, admonitions, and approving and guiding foci, which form in their entirety the drive-channeling and drive-neutralizing basic fabric of the ego."(p. 47-48)

"The internal structure ... now performs the functions which the object used to perform for the child--the well-functioning structure, however, has largely been divested of the personality features of the object. Imperfections in this part of the process are well known: the superego, for example, usually shows traces of some of the human features of the oedipal object, and the drive-controlling basic fabric of the psyche may work with specific personalized methods of threat and seduction which are directly derived from characteristics of preoedipal objects ..."(p. 50)

Where Guntrip and Kohut do not clearly refer to or acknowledge voicing phenomena, Kernberg (1980) tends to refute their existence. His major criticism of Klein's work is over her lack of theoretical discussion of the development of the internal structures.

"Klein neglects the developmental aspects of structural differentiation within both ego and superego formation, and never explains how 'internal objects' are integrated into ego and superego, how later developments differ from earlier ones.... Segal (has) attempted to meet the criticism ... Segal's structural analysis ... still appears to

leave open some questions regarding psychic structure ... defines internal objects as objects introjected into the ego; the ego identifies with some of these objects, which thus become assimilated into the ego, contributing to its growth and characteristics. Other objects remain separate internal objects, and the ego maintains a relationship with them. Segal states that the superego is such an object--thus equating, it seems to me, what in ego psychology terms might be described as object representations with so complex a structure as the superego. Segal conveys the impression that the tripartite structure is but one instance of the development of relationships between internal objects and the ego, with the additional confusing implication that objects are both included in the ego and relate to it at the same time. Even granting that some of the problems of these conceptualizations are semantic ... the inescapable conclusion is that the earliest internalized objects are treated as equal to highly complex intrapsychic structures...." (p. 42)

This seems to have stated the issue fairly clearly. If we assume that Klein, and perhaps Segal, were writing about voicing phenomena as if they were universals, and that Kernberg was unaware of such phenomena, then it would follow that Kernberg would view the structural system as highly abstract, and would object to having structures simultaneously contained within the ego and being related to by it. Such a concept would appear ungrounded, confusing and unnecessary. Klein, on the other hand, would tend to describe the system in more experiential terms and would, by simple observation, determine that many elements of internal object

relations are directly and consciously experienced. The concept of structures being contained within the ego and also relating with it as separate objects would not be a matter of conjecture, but rather empirical fact. This would correspond with the descriptions of voicers who are clear that the admonitions, threats, and supportive statements of their "voices" are statements from the "self", yet use second and even third person form of address.

Similarly, Kernberg's description of Klein's position fails to convey the sense of a verbally interactive relationship between aspects of the psychic structure.

"The content of persecutory anxiety or paranoid fears varies according to the level of psychosexual development. There are, first, oral fears of being devoured, then anal fears of being controlled and poisoned; these early contents later shift into oedipal fears of castration.... These primitive persecutory fears constitute the basis of persecutory delusions in schizophrenia and paranoid psychoses." (p. 24)

"... even under ideal circumstances, there is a certain contamination of the good objects by the bad objects in the superego, thus increasing internalized demands for perfection. Under less than optimal circumstances, such demands for perfection deteriorate into the unremitting harshness of infantile and childhood unconscious morality." (p. 35)

Kernberg's own position seems to remove these superego functions from the conscious sphere when he

refers to "... the unconscious guilt feelings generally characteristic of superego functioning." (p. 71) He seems to further question the descriptions of superego of Klein and Freud when he notes that "Fairbairn felt that, because Freud had developed his structural model, particularly his concept of superego, under the influence of his study of mourning and melancholia, he had overestimated both the importance of aggression in psychopathology and the conflicts between later stages of the superego and ego." (p. 71)

Bion (1962) also seems to question Freud's conceptualization of consciousness, making an effort to explain why Freud would describe consciousness as a "sense-organ of psychic quality".

"... it is hard to believe that sense data, as ordinarily understood, could bring much material of value when the object of the senses is an emotional experience of a personality.... The sense may be able in a state of fear or rage to contribute data concerning the heart-beat, and similar events peripheral, as we see it, to an emotional state. But there are no sense-data directly related to concrete objects. Hypochondriacal symptoms may therefore be signs of an attempt to establish contact with psychic quality by substituting physical sensation for the missing sense data of psychical quality. It seems possible that it was in response to his awareness of this difficulty that Freud felt disposed to postulate consciousness as the sense-organ of psychic quality." (p. 53)

To the voicer, consciousness is a most immediate experience, and may well be considered a kind of

sensory experience reflecting their internal state. To the nonvoicer, emotions and other internal states are felt only in terms of the senses to which Bion refers.

Hall and Lindsey (1957) reviewed the psychoanalytic approach, and again did not make the kind of description of superego, let alone conscience, which appears in Freud's writings. They went somewhat further, however, by diminishing the objectification of the ego by the superego. They described the ego/superego system in a way that almost ruled out the kind of routine criticism described by voicers, and suggested that a consciously experienced phenomenon related to superego functioning simply doesn't exist.

"... the id, the ego and the superego ... interact so closely with one another that it is difficult, if not impossible, to disentangle their effects...." (p. 32)

"... id, ego and superego are not to be thought of as mannikins which operate the personality. They are merely names for various psychological processes which obey different system principles. Under ordinary circumstances, these different principles do not collide with one another, nor do they work at cross purposes. On the contrary, they work together as a team under the administrative leadership of the ego. The personality normally functions as a whole rather than as three separate segments." (p. 35-36)

Here also was the presentation of internal conflict as an abstract entity rather than a concrete experience.

"All of the conflicts within the personality can be

reduced to the opposition of these two forces (cathexis and anticathexis)." (p. 44)

The psychoanalytic literature is thus ambiguous on the voicing phenomenon. Some of the literature could be interpreted as referring to such a phenomenon and relating it to superego functioning, but there was no indication that there might be a distinction in this functioning which divided the population, i.e. that some people might not experience this form of functioning. Some of the literature seemed to be rewording these concepts, making them more abstract and less experiential, without any apparent sense that a rewording was being done. There seemed to be no reference to the kind of distinction in conscious functioning which was being described by voicers and nonvoicers.

Another group of theorists has done considerable work on the issue of how best to represent thought. They tend to separate out into two groups: multimodal advocates and unimodal advocates. Those who advocate multimodal descriptions of thought distinguish between lexical (verbal) forms of thought and imaginal (nonverbal) forms of thought. The unimodal theorists, on the other hand, seem to take the position that nonverbal thought is not thought at all, but rather some form of conjecture about processes which are below

the level of conscious thought.

Gurova (1969), examining components of thought in problem solving, concluded that there exist two distinct but interrelated modes of thinking. He described one mode as concrete and the other as imaginal, roughly paralleling the verbal/nonverbal concepts of the multimodal theorists. Arnheim (1970,1971) advocated the acceptance of two modes of thought also, and labelled them verbal and visual. Horowitz (1972) also followed the multimodal line, but he broke the concept into three parts: enactive, image, and lexical. He further asserted that these modes involve distinct organizational properties which distinguish one from the other, and involve differing cognitive processes.

Grodzinski (1980) took the unimodal position, insisting that human thought is verbal and that human consciousness is, in fact, derived from this verbal nature of thought. He argued that it is words which provide the necessary abstractions characteristic of thought. Images, he stated, are not true reflections of human thought because they are too concrete. The role of images in human thought is akin to the function of illustrations in a book; they are secondary supports for the main process.

In the study of these theorists, no references

were found to the notion that thought might not be a unimodal process (though this was under some question) and that the two modes tended to separate out over the concept of internal verbalization. All of the multimodal and unimodal theorists agreed that lexical thought was one of the modes of thought. Multimodal theorists went on to state that other, nonverbal, modes existed as well. No one spent much time describing the experience of thinking. There were no references to the verbal thinking which gave any suggestion of the kind of involuntariness described by the voicers, nor any which appeared to distinguish between one track and multiple track verbal processing described by nonvoicers and voicers respectively. Here was the same situation as had existed in the other literature, that unimodal theorists and multimodal theorists alike viewed the human population as having only one nature with regard to thought. No one seemed to be suggesting that the population was divided into two groups having distinctively different experiences of conscious thought.

OBJECTIVES OF THE RESEARCH PROGRAM

This research project had two main objectives: The first and perhaps most obvious was to develop a means of measuring the presence of the voicing

phenomenon (or demonstrating the lack thereof) and minimizing the persuasive impact of the experimenter in the interview process. The second objective, assuming the measurement objective was met, was to relate the voicing phenomenon to some conceptual/theoretical base and thus provide a starting point for future research and exploration of the concept.

Two approaches were taken to the latter goal. One effort attempted to determine antecedent conditions which might cause voicing behaviours to develop. Child rearing practices of subjects' parents, memory style of the subject, and an assortment of demographic variables were examined. In a different direction, possible consequences of the voicing phenomenon were studied. A number of variables were selected which seemed likely to be affected by having or not having an internal voice. Among these were conformity, social dominance, and decisiveness.

The following chapters report on these studies, beginning with an overview of the procedures and followed by more detailed descriptions of the findings in each area.

CHAPTER II

OVERVIEW OF THE THREE EMPIRICAL STUDIES

Three separate empirical studies have been done. Each study used a separate sampling of subjects and none of them used as subjects any of the colleagues or friends with whom the voicing phenomenon had been originally explored. This chapter will provide a brief overview of the objectives, subjects and procedures of each of the studies. Chapter III will explore in detail the pursuit of the measurement objective across the studies. Chapter IV will describe the search for related antecedent variables which was made in the first two studies. Chapter V will discuss the consequent variables used in the third study and the results of a causal analysis of that data. Chapter VI will conclude with a discussion of the overall findings of this project and some recommendations for further study.

STUDY 1. OVERVIEW

The first study was a feasibility study. Could a phenomenal description be written so that subjects would identify themselves as "voicer" or "nonvoicer"? In addition to testing the description, a number of

items were constructed to explore some of the antecedent hypotheses we had generated. This study was also an exploratory study containing a series of questions for voicers which inquired into the nature, duration, number and gender of the perceived "voice(s)". This latter information was collected so that we might increase our ability to describe the phenomenon and thus improve upon our measurement instrument.

The subjects for the first study consisted of twenty-six social science undergraduates at Michigan State University and an additional fourteen other adults, mostly professionals; acquaintances who had never discussed this concept prior to taking the questionnaire. This latter group was used both to widen the age range and for the breadth, depth and candor of feedback they could provide.

The entire questionnaire comprised two pages, one for the description and one for the items (See Appendix A). The subjects were given the questionnaire on an informal basis. The students took it as a group after a regular class, and the other adults took it individually. Very few questions were raised, and no one seemed to have much difficulty with the instrument.

STUDY 2. OVERVIEW

In the first study, the self-identification was based on only one description. Thus, there was no measure of the reliability of the identification. Also, several subjects and friends expressed dissatisfaction with one or more elements of the description used. Consequently, two new descriptions of the voicer/nonvoicer distinction were added to the questionnaire. The objective of this revision and expansion was to assess the reliability and resolution of the measurement instrument.

The second study followed up the efforts of the first study in terms of the antecedent hypotheses also; the very general questions of the first study were made more specific. The second study also included the exploratory questions about the experience of the "voice" that were used in the first study.

The second study questionnaire was given to 165 undergraduate students at Michigan State University. These were students from two introductory psychology classes who were given the questionnaire during the latter half of the class period.

The second study used the questionnaire containing three descriptions (see Appendix B) and the self-identification items for each description as well as a fourth identification based on the subject's

global assessment. There were then several items seeking feedback and comments about the descriptions and the terms used in those descriptions. The rest of the questionnaire was substantially the same as used in the first study, save for the expansion of the antecedent hypothesis items. A cover letter was added to the questionnaire which introduced the project to the subject.

The questionnaire took longer to complete, having nearly tripled the amount of reading required, but still resulted in very little confusion or difficulty. The results showed the instrument to have substantial reliability, although most of the developmental hypotheses were disconfirmed.

STUDY 3. OVERVIEW

The third study made only a slight change in the test instrument, primarily by changing the order of presentation of the descriptions. The search for correlates of the voicer/nonvoicer distinction shifted to the testing of consequent hypotheses. The shift was from trying to ascertain what might have produced the voicing phenomenon to trying to determine factors which might be affected by or be the result of the voicing phenomenon. Thus, the questions used in the first two studies were replaced by a new set of items which are

discussed in detail in Chapter V.

Study 3 utilized the undergraduate psychology student pool at Michigan State University for its 147 subjects. Subjects signed up to complete the questionnaire which was administered to groups of between twenty and fifty students at the end of the day.

The students were given the questionnaire (see Appendix C), which was again headed by a cover letter introducing them to the nature of the material to follow. The three descriptions were then presented, each one followed by the self-identification items. These were followed by self-identification questions based on the subject's global assessment. There were then several items requesting feedback on the descriptions. Subjects again reported little difficulty with this questionnaire. The rest of the questionnaire was composed of seventy-three items chosen to measure fifteen a priori factors. These items and their factors can be found in Appendix D.

The three studies each had elements of refinement and testing of the primary measurement instruments: the descriptions and the accompanying self-identification items. Studies 1 and 2 pursued the testing of antecedent hypotheses while Study 3 focussed instead on consequent hypotheses. Results will be presented for

each objective separately; i.e. a chapter on measurement, then a chapter on developmental hypotheses, and then a chapter on the impact of the voicer difference on other personality traits.

CHAPTER III

THE MEASUREMENT OF THE VOICER/NONVOICER DIMENSION

This project began with informal discussions among friends and colleagues. The procedure used among friends had been to describe the voicing phenomenon and then ask the friend whether they identified with that process. This direct approach had the advantage of clarity but raised questions concerning the influence of the questioner upon the responses. The most similar noninterview measurement strategy is to present a written description of the voicing phenomenon and then ask the subject for a self-description (if possible) and a confidence rating.

The person who first recognized the voicer/nonvoicer distinction wrote a summary of the original discovery and included some of the speculations he had made about it since then. This narrative description was not unlike the descriptions we had been using among our friends.

The original written description seemed to be too informal and specific for our purposes. It was rewritten to provide a greater emphasis on general description of the phenomenon rather than citing specific cases. Proper names were also eliminated and

the description was shifted from first person to third person. This modification of the original was the description used in Study 1.

After the first study, colleagues and friends raised a number of comments and concerns regarding both the Study 1 description and the original description. These comments were directed at the balance and the clarity of the descriptions.

Some who identified themselves as voicers expressed concerns that the descriptions were somewhat derogatory in tone, particularly with the use in the original description of the term "little voice". The voicing phenomenon, they said, felt like a natural aspect of their thinking and had little or no character of coming from the "outside". They wanted a description which emphasized this aspect and which referred to more of their thinking than just the voicing.

Some who identified themselves as nonvoicers expressed different concerns about the original and Study 1 descriptions. While they were fairly sure they were not voicers, they really had no clear alternative description with which they could identify. They thought that the lack of a positive identification made it harder for them to be sure. They wanted a description which would give greater balance concerning

voicers and nonvoicers.

Some colleagues from the philosophy department expressed concern about the language used in the descriptions. They felt the terms used were too ambiguous and that the descriptions could use a lot of "tightening up". They wanted a description which was concise and direct, without digressions into personal examples and experiences.

A third description was written in an attempt to satisfy the concerns and desires of the various critics of the first two descriptions. It became clear, however, that this new description also had its critics. There was no clear criterion for selecting one version over another. In fact, there was good reason not to do so. The three descriptions used together could serve as multiple measurement of the voicer/nonvoicer distinction and thus provide a means of assessing the reliability of each description.

The multiple measure instrument for Study 2 asked for four self-identifications. The first three were in response to each of the three descriptions considered separately. The fourth self-identification was based on having read all three descriptions.

This multiple measurement instrument encountered some difficulty which was traced to the order in which the descriptions were presented. The descriptions were

reordered for Study 3. All three descriptions can be found as the beginning of each questionnaire in Appendices B and C.

STUDY 1

Method

The first study essentially tested the feasibility of using a written description to elicit self-identification on the voicer/nonvoicer distinction. This study used the revised version of my friend's original draft. The description was followed by the question:

If you had to answer one way or the other, would you say you were a:

Voicer_____ Nonvoicer_____

This item was immediately followed by the question:

How confident are you about your answer?

Very confident 1 2 3 4 5 Not at all confident

By using both of these items, we could obtain a forced-choice self-identification with one of the two groups and a measure of how much certainty the subject placed in the choice they made.

This instrument was given to twenty-six social science undergraduates at Michigan State University and an additional fourteen professional acquaintances.

Results

Nearly two thirds of this sample identified themselves as voicers, showing that subjects did make differential responses to the instrument. Table 1 below indicates the degree of certainty the subjects expressed with regard to their self-identification. As can be seen from the table, most subjects showed a high degree of certainty in their self-identification.

The expressed degree of certainty was higher for voicers than for nonvoicers. The correlation of 0.39 between certainty and voicer/nonvoicer, as shown in Table 2, reflects this relative uncertainty of the nonvoicers as a group.

When questioned after the study, subjects generally felt the description was easy to read, interesting and understandable. A few subjects felt the description was too ambiguous. Some subjects who had identified themselves as nonvoicers complained of the lack of description of what nonvoicers were and stated that this had been a source of uncertainty for them.

Table 1.
Frequency of response to certainty item in Study 1

Very confident scored as 5
Not at all confident scored as 1

SCORE	5	4	3	2	1	
Voicer	14	9	1	0	1	N=25 $\mu=4.40$
Nonvoicer	5	4	2	2	2	N=15 $\mu=3.53$
TOTAL	19	13	3	2	3	N=40

Table 2.
Relationship of
Certainty and Voicer/nonvoicer items in Study 1

Self-ID Certainty	Voicer	Nonvoicer	
1 or 2	23	9	32
3, 4 or 5	2	6	8
	25	15	40

$r=0.39$

A survey of the voicers regarding the nature of their "voice" was also made. Among the twenty-five voicers, five reported more than one voice, with a number of others stating that the one "voice" represented, sounded like, or spoke for more than one perspective or character. Two voicers reported voices of the opposite gender, eight more said they were unsure of the gender and many reported difficulty distinguishing among male, female and "self" gender in their thoughts. There was a broad mix of characterizations of the voicing both in terms of situations which might result in voicing and in terms of the kinds of things "said". There seemed to be a tendency for the older subjects to be more likely to report that the nature of the voice(s) had changed over the years, always in the direction of increased cooperation and maturity.

Discussion

The primary measurement questions were answered in this first study. Subjects did sort themselves out according to a voicer/nonvoicer distinction on the basis of a written description. Furthermore, most did so with a high degree of certainty that they were correctly identifying themselves.

STUDY 2

Method

The second study sought to improve upon the measurement instrument in two ways: 1) Develop three alternate descriptions responding to the comments and criticisms from subjects and colleagues, and 2) Use all three descriptions developed as well as a global response to provide a multiple measure reliability check and to compare the effectiveness of the various descriptions.

The first description presented was the newest "philosophical" version, followed by the questions:

1) Now that you have read this description, how would you classify your mode of thought:

Explicit Conscious Thought____
Implicit Conscious Thought____

2) How confident do you feel about this judgement:

☐ Very Sure ☐ Sure ☐ Hesitant ☐ Doubtful ☐ Just Guessing

The second description was the original description my friend had written, followed by the questions:

1) From what you have read above, would you say that some of your thoughts take the form of an internal "voice"?

I have an Internal Voice____
I have had no such experience____

2) How confident do you feel about this judgement?

☐ Very Sure ☐ Sure ☐ Hesitant ☐ Doubtful ☐ Just Guessing

The third description was the revised description used in Study 1, followed in turn by the questions:

1) Now that you have read this description, how would you classify yourself?

Voicer_____ Nonvoicer_____

2) How confident do you feel about this judgement?

☐ Very Sure ☐ Sure ☐ Hesitant ☐ Doubtful ☐ Just Guessing

The subject was then asked for a global assessment:

1) How would you characterize your own mode of thought?

Explicit Conscious Thought	Implicit Conscious Thought
/ /Internal voice	/ /No internal voice
Voicer	Nonvoicer

2) How confident do you feel about this judgement?

☐ Very Sure ☐ Sure ☐ Hesitant ☐ Doubtful ☐ Just Guessing

Subjects were then asked which label they preferred and which description had been most helpful. Finally, subjects were asked for feedback on the instrument's clarity and tone plus any other comments or criticisms they might have.

The questions following the descriptions reflect

the variation of approach that each version had taken to the phenomenon. The philosophical version describes modes of thought and concentrates as much attention on the implicit (nonvoicer) mode as on the explicit (voicer) mode and refers to these modes as distinct "types". It further avoids an emphasis on the voicing phenomenon itself, referring to it as merely one way of describing the internal verbal dialogue. The "voice" is referred to as one of several "thought tracks" which occur in parallel or simultaneous fashion.

In contrast to this, the original version refers entirely to the voicing phenomenon, referring to it as an internal voice and making no real effort to describe two types. The question is not "what are you?", but rather "what have you experienced?"

The revised version used in Study 1 falls somewhat between the other two. While its main emphasis is on the voicing experience, it also suggests a typology and uses the labels "voicer" and "nonvoicer". The subjects are told, both in a cover letter to the experiment and in the presentation of the global assessment questions, that these three descriptions are all describing the same concept, but from varying perspectives.

The use of the multiple forms set the stage for answering some questions about the reliability and nature of the voice/nonvoice results. If subjects

consistently identify with one or the other side of the distinction across all three forms of the description and in their global assessment, e.g. if these four sets of responses are highly correlated, then the self-identifications are not due to random or idiosyncratic interpretations of particular phrases in any one description.

Results

Table 3 displays the analysis of responses to the identification and confidence questions. There are more voicers expressing uncertainty about their identification in Study 2 than there were in Study 1. The mean voicer certainty in Study 1 was 4.4, while in Study 2 the mean certainties for the four facets were 3.5, 4.0, 3.9 and 3.7. In Study 1, 92% of the voicers marked "sure" or "very sure" on the certainty question. In Study 2 only 65% of the voicers responded "sure" or "very sure" to the global certainty question. Thus, voicers were less certain of their identification in response to the expanded instrument.

Nonvoicers showed a smaller but opposite movement. Their average certainty in Study 1 was 3.5 and in Study 2 improved to 3.8, 4.1, 4.0 and 3.9 for each successive self-identification. In Study 1, 60% of nonvoicers were "sure" or "very sure" while in the global facet of

Study 2, 64% were in these categories. For both voicers and nonvoicers, the poorest certainty levels were recorded in response to the philosophical version of the description, which appeared first in the instrument. Even on this facet, however, 60% of the sample responded "sure" or "very sure" to the question and only 11% responded in the "doubtful" or "just guessing" categories.

Table 3.
Responses to Voicer/nonvoicer and Certainty items
in Study 2

Form of description	Mean certainty	Percent responding very sure or sure		
		V	NV	Total
Philosophical	3.65	56	63	60
Original	4.05	78	83	80
Study 1	3.97	75	76	75
Global response	3.80	65	64	65

Table 4 shows the correlation matrix of the four self-identification questions. The philosophical version has a low correlation to either of the other two descriptions and correlates only 0.52 with the global identification. The other two descriptions are highly correlated with one another and with the global identification.

Table 4.
Correlations between the four self-identification items
in Study 2
(Communalities in the diagonal)

	Philosophical	Original	Study 1	Global
Philosophical	.20	.31	.39	.52
Original		.67	.87	.77
Study 1			.92	.91
Global				.97

In general, the feedback received from subjects indicated that the concepts were interesting. Many were excited and expressed eagerness to discuss them further. The instrument appeared easy to take and to administer, requiring no explanations or clarifications from the experimenter. Nearly all of the negative feedback was focussed on the philosophical description. Subjects reported that it was difficult to read and somewhat confusing. Several stated that they were not sure how the concepts of the philosophical description paralleled those of the other two descriptions.

Discussion

The primary measurement objectives were met. Subjects did consistently identify with one or the other side of the voicer/nonvoicer distinction across all four identifications, although there seemed some

weakness with the philosophical description. The results of Study 1 were also confirmed in the high certainty levels reported.

The philosophical description was the weakest form presented and it seemed to depress the certainty scores of voicers. It was definitely the most difficult to read, since it used the most formal and abstract language. It seemed possible that one major source of this form's weakness was in its order of appearance. As the first description, it presented the most difficult material with the least preparation or introduction to the concept. It was hypothesized that the philosophical description would work better if it were not presented first.

STUDY 3

Method

The third study sought to check out the impact of a different ordering of the descriptions. In Study 3, the original description was presented first since subjects in Study 2 perceived it to be the most informal and easiest to read of the three forms. The philosophical version was placed second to separate the original description and its revision, the Study 1 description.

Results

Table 5 displays the analysis of responses to the identification and certainty questions for Study 3. The certainties across all four identifications are very high, with 68 to 90% of subjects responding that they are "sure" or "very sure" of their identifications. No more than 2% of the subjects responded in the "doubtful" or "just guessing" categories.

Table 5.
Responses to Voicer/nonvoicer and Certainty items
in Study 3

Form of description	Mean certainty	Percent responding very sure or sure		
		V	NV	Total
Philosophical	3.89	69	68	69
Original	4.04	72	73	73
Study 1	4.09	71	90	82
Global response	3.99	75	83	80

Table 6 presents the correlation matrix of the four self-identification questions in Study 3. As in Study 2, the philosophical description has the lowest correlations with the other forms, but these are higher in Study 3 than they were in Study 2. The remaining correlations are all very high, ranging from 0.83 to 0.97.

Table 6.
Correlations between the four self-identification items
in Study 3
(Communalities in the diagonal)

	Philosophical	Original	Study 1	Global
Philosophical	.29	.48	.51	.51
Original		.75	.83	.83
Study 1			.94	.97
Global				.93

The feedback obtained from subjects was generally more positive than in Study 2. In particular, there was a marked reduction in comments regarding difficulty with the philosophical description.

Discussion

Study 3 replicates the main findings of both prior studies, both in regard to the consistency of subjects' self-identifications and the expressed confidence in their choices. The reordering of the descriptions had a markedly positive effect on subjects' confidence in their global assessments.

CONCLUSION

These three studies have shown that subjects will make self-identifications on the basis of a written description of the voicer/nonvoicer concept, and most

do so with considerable certainty. They make consistent choices over varying forms of the description. The instrument as it was finally constituted in Study 3 appears to be a consistent and reliable means of measuring the voicer/nonvoicer distinction. It is, in addition, easy to administer, self-explanatory, and easy to take.

CHAPTER IV
THE VOICER/NONVOICER DISTINCTION
AND DEVELOPMENTAL HYPOTHESES

The first two studies explored a number of hypotheses related to the development of the voicing phenomenon. The principle hypothesis was that the voicing phenomenon was an extreme form of the psychoanalytic superego concept and represented a highly active conscience resulting from the introjection of or identification with a particularly bad object.

STUDY 1

Method

As test of this hypothesis, Study 1 used items relating to parental strictness, level of childhood family interaction, religiosity, gregariousness, emotionality, happiness and self-criticism. All of the above items were in the form of a Lickert five-point differential.

Two additional items were added relating to possible manifestations or descriptions of voicing. These asked about subjects' history of having a childhood imaginary playmate and subjects' tendency to

speak aloud to themselves. There were also some demographic items covering gender, birthdate, birth order, family size, and ethnic and religious background.

One further item was developed to check out a possible relationship between voicing and memory style. This item was an outgrowth of master's thesis research (Salzman, 1973) which showed people divided into three groups based on their style of memorization. There appeared to be two effective and distinct styles which had been labelled graph processing and list processing. These were characterized by the use of imagery and the use of verbal rote memorization respectively. A third and less effective style, associative processing, seemed to be the one used by people who had not yet developed a facility for either of the other styles. It was suspected that the list processing related to the voicing phenomenon and we wished to check this out. However, the procedures used in the master's study for distinguishing memorization styles were complex and time-consuming. A single multiple-choice item was written which probed directly at the issue and appeared likely to correlate strongly with the results of the more elaborate procedure.

It was the intent of the first study to map out areas of further study. If any of the items correlated

well with the voicer/nonvoicer distinction, more attention would be put toward verifying and validating the relationships. (For items see Appendix A)

Results

The correlations of the self-identification as a voicer or nonvoicer with the other items in Study 1 are shown in Table 7. The item "Are you often tempted to speak aloud to yourself?" correlated 0.68 with a self-identification of voicer. This was the only significant correlation at the .01 level between any of the items and the voicer/nonvoicer distinction. As noted in Chapter III, voicers were more likely to be certain of their identification than nonvoicers and this is reflected in the correlation of 0.35 between Voicer and Certainty. Those reporting European ancestry tended not to identify themselves as voicers ($r=-0.40$) while those who were brought up as Catholics did so ($r=0.33$). Those who used an Image memory style tended to be nonvoicers ($r=-0.32$), as was expected, but the expected relationship between Rote memory style and Voicer was not present ($r=0.04$). Of all the developmental variables, only "Not currently self-critical" was correlated with the Voicer variable ($r=-0.35$). The item related to having had an imaginary childhood playmate failed to correlate with the

voicer/nonvoicer distinction.

Sample size may have been a major potential contributor to these results. A sample of only forty subjects requires a correlation of .31 to achieve statistical significance. Variables whose population correlations are below this level would be difficult to detect. Furthermore, a small sample is likely to produce small variances among individual variables, which would tend to deflate the size of observed correlations. Items with zero variance make computation of a correlation coefficient impossible. Table 8 presents the means and standard deviations for the items in Study 1.

Table 7.
Correlations of items with Self-identification
in Study 1

* indicates zero variance for the item

		Voicer	
Voicer		1.00	
Certainty		0.35	p<.05
Male-female		0.15	
Birthdate	month	-0.24	
	day	-0.16	
	year	-0.00	
Birth order		0.05	
Family size		0.24	
Race	caucasian	-0.17	
	black	0.12	
	oriental	*	
	other	0.12	
National	Europe	-0.40	p<.05
Ancestry	Asia	0.13	
	America	-0.04	
	Africa	*	
	Other	0.13	
Religion	Catholic	0.33	p<.05
	Protestant	-0.25	
	Jewish	-0.03	
	Other	-0.06	
Major	Social Sci	-0.06	
	Natural Sci	*	
	Humanities	0.13	
	Business	-0.25	
	Education	0.24	
	Other	-0.05	
	None	0.13	
Memory	Image	-0.32	p<.05
style	Mnemonic	0.21	
	Rote	0.04	
Childhood	Parent permissive	-0.02	
family	Not interactive	0.12	
	Not emotional	0.02	
	Not religious	-0.18	
	Many friends	0.07	
	Very unhappy	-0.16	
	Not self-critical	-0.03	
Current	Minimal interactive	-0.04	
family	Not emotional	-0.29	
	Not religious	0.03	
	Many friends	0.05	
	Very unhappy	0.11	
	Not self-critical	-0.35	p<.05
Imaginary playmate		0.17	
Talks to self		0.68	p<.01

Table 8.
Means and Standard deviations for Study 1

		Means	Standard deviations
Voicer		.625	.484
Certainty		4.075	1.191
Male-female		.625	.484
Birthdate	month	6.300	3.607
	day	16.050	9.211
	year	49.850	8.064
Birth order		2.000	1.177
Family size		3.846	2.155
Race	caucasian	.947	.223
	black	.026	.160
	oriental	.000	.000
	other	.026	.160
National	Europe	.636	.481
Ancestry	Asia	.030	.171
	America	.606	.489
	Africa	.000	.000
	Other	.030	.171
Religion	Catholic	.263	.440
	Protestant	.553	.497
	Jewish	.132	.338
	Other	.053	.223
Major	Social Sci	.632	.482
	Natural Sci	.000	.000
	Humanities	.026	.160
	Business	.105	.307
	Education	.184	.388
	Other	.053	.223
	None	.026	.160
Memory	Image	.525	.499
style	Mnemonic	.400	.490
	Rote	.150	.357
Childhood	Parent permissive	2.974	.891
family	Not interactive	2.300	1.122
	Not emotional	2.692	.938
	Not religious	2.846	1.251
	Many friends	3.625	1.088
	Very unhappy	2.375	1.088
	Not self-critical	2.825	1.070
Current	Min. interactive	2.400	1.200
family	Not emotional	2.425	.997
	Not religious	3.650	1.459
	Many friends	3.400	1.091
	Very unhappy	2.200	.927
	Not self-critical	2.525	.894
Imaginary playmate		.300	.458
Talks to self		.675	.468

STUDY 2

Method

The items of the Study 2 questionnaire were substantially the same as those in Study 1 (See Appendix B). Some of the items were expanded or augmented to make them somewhat more specific. The item "Parents very strict" was changed to the two items "Mother very strict" and "Father very strict". Similarly, the items "Very emotive" and "Very happy" were replaced with "Father often angry", "Mother often angry", "Self often angry", "Father generally happy", "Mother generally happy" and "Self generally happy".

An additional question relating to the ease of making arbitrary decisions was included to test the effectiveness of one of the questions often used in the earlier interviewing phase of this study. This was a multiple-choice item regarding the ease of selecting for purchase one statue from among a group of identical statues. Our experience had suggested that this type of task posed a considerable problem for voicers and little or no problem for nonvoicers.

The sample size issue of Study 1 was dealt with by increasing the sample to 167 subjects, all Michigan State University undergraduate psychology students.

Results

The correlations between the self-identification, as measured by the global assessment, and the demographic items are shown in Table 9.

Table 9.
Correlations of demographic items with
Self-identification in Study 2
* indicates zero variance for the item

Demographic items		Global I.D. Voicer
Race	caucasian	-0.13
	black	0.03
	oriental	-0.08
	other	0.11
National Ancestry	Europe	-0.13
	Asia	*
	America	0.08
	Africa	-0.08
Religion	Other	0.11
	Catholic	0.00
	Protestant	-0.09
	Jewish	0.06
	Other	-0.04

Table 10 displays the correlations between the self-identifications and the remaining items in the survey. The means and standard deviations are shown in Table 11. The significant correlations which had appeared in Study 1 with the demographic items were not replicated, which suggests that the earlier correlations were the result of sampling error. Only two items correlated significantly with the voicer/nonvoicer distinction. Voicers are more likely

to 1) talk out loud to themselves and 2) have had an imaginary childhood playmate. All of the remaining items failed to show significant correlations.

In contrast to Study 1, there were none of the problems associated with small sample size. Consequently, the hypotheses relating characteristics of the subjects' childhoods and families to the voicer/nonvoicer distinction were all rejected. Similarly, the effort to produce a quick identification using the choosing-a-statue question failed. Nor was a relation found, as had been in Study 1, between memory style and voicing. There did not appear to be a simple and direct antecedent variable which would correlate with the voicer/nonvoicer distinction.

Since the antecedent variables had failed to map out areas for further study, an effort was made to shift perspective and search for factors which might be the result of, rather than precursors to, the voicing phenomenon. Chapter V reports on this effort.

Table 10.
Correlations of items with Self-identification
for each of the four forms in Study 2
(decimal points omitted)

Items		Voicer			
		Philos	Orig	Study 1	Global
Philos.	voicer	100	31	39	52
	certainty	13	-6	-5	-5
Original	voicer	31	100	87	77
	certainty	11	6	9	10
Study 1	voicer	39	87	100	91
	certainty	14	9	4	3
Global	voicer	52	77	91	100
	certainty	13	11	12	10
Preferred	ECT/ICT	4	-22	-22	-13
label	Internal voice	-1	-2	1	-4
	Voicer	-1	-8	-7	-8
Preferred	Philosophical	0	-6	-5	-8
form	Original	5	7	10	7
	Rewritten	-11	-12	-15	-7
	Combination	-2	-5	-4	-2
Problems/	Vague	-10	-9	-5	-3
comments	Derogatory	1	-3	-10	-7
	Insufficient	14	8	7	13
	Other	-3	7	3	3
Male-female		-12	15	12	4
Age		4	-2	2	3
Memory	Image	14	2	7	8
style	Mnemonic	-10	-8	-8	-8
	Rote	1	11	4	3
Choose	Just take one	-8	-11	-13	-11
statue	Have trouble	1	7	13	9
	Other	7	2	-4	-1
Imaginary playmate		4	20	23	19
Talks to self		18	20	27	32
Childhood	Fa. permissive	-3	6	4	8
	Mo. permissive	12	-7	-7	-10
	Fa. not angry	1	3	0	0
	Mo. not angry	10	1	4	3
	Self not angry	-10	-4	0	3
	Fa. unhappy	-3	8	7	4
	Mo. unhappy	-7	13	9	2
	Self unhappy	2	8	5	2
	Noninteractive	8	5	1	-3
	Not religious	1	8	5	0
	Many friends	3	-2	0	0
	Unsuccessful	6	-5	-9	-12
	Not self-critical	-2	-12	-6	-6

Table 10 (cont.).

Items		Voicer			
		Philos	Orig	Study 1	Global
Current life	Min. interactive	5	3	2	-1
	Poor in school	1	12	5	-3
	Rarely angry	1	-1	-6	-3
	Not religious	4	2	4	-4
	Many friends	8	8	6	10
	Very unhappy	-6	7	6	-3
	Not self-critical	0	-10	-5	0
	Date rarely	-3	16	15	14

Table 11.
Means and Standard deviations for Study 2

Items	Means	Standard deviations
Philosophical voicer	.561	.496
certainty	3.645	.899
Original voicer	.530	.499
certainty	4.036	.744
Rewritten voicer	.500	.500
certainty	3.976	.819
Global voicer	.522	.500
certainty	3.804	.805
Preferred label	ECT/ICT	.489
	Internal voice	.443
	Voicer	.409
Preferred form	Philosophical	.494
	Original	.499
	Rewritten	.498
	Combination	.467
Problems/ comments	Vague	.496
	Derogatory	.454
	Insufficient	.429
	Other	.454
Male-Female	.512	.500
Age	22.213	4.221
Race	Caucasion	.159
	Black	.030
	Oriental	.006
	Other	.047
National origin	European	.245
	Asian	.000
	American	.176
	African	.006
	Other	.030
Religion	Catholic	.226
	Protestant	.232
	Jew	.063
	Other	.041
Memory style	Image	.487
	Mnemonic	.491
	Rote	.463
Choose statue	Just take one	.478
	Have trouble	.442
	Other	.315
Imaginary playmate	.178	.383
Talks to self	.554	.497

Table 11 (cont.).

	Items	Means	Standard deviations
Childhood	Father permissive	2.855	.957
	Mother permissive	3.019	.918
	Father not angry	3.321	1.162
	Mother not angry	3.209	1.038
	Self not angry	3.333	1.001
	Father unhappy	2.706	1.040
	Mother unhappy	2.596	.999
	Self unhappy	2.538	.993
	Not interactive	2.406	1.195
	Not religious	2.870	1.305
	Many friends	3.306	1.209
	Unsuccessful	2.156	.919
	Not self-critical	2.205	.947
Current life	Min. interactive	2.652	1.227
	Poor in school	1.900	.784
	Rarely angry	3.263	1.009
	Not religious	3.646	1.297
	Many friends	3.438	1.076
	Very unhappy	2.463	.908
	Not self-critical	2.273	.984
	Date rarely	2.869	1.320

CHAPTER V
THE VOICER/NONVOICER DISTINCTION
AND CONSEQUENT VARIABLES

The first two studies had explored a number of hypotheses related to possible causes of the voicing phenomenon. None of these hypotheses were confirmed, and a new direction of study was taken. In Study 3, the emphasis was moved from variables which might have been antecedent to the voicing phenomenon to those which might be consequences of the voicer/nonvoicer distinction. Several factors were derived from anecdotal data and subjective observations. Study 3 had two primary goals: objectify the anecdotal and subjective variables in order to obtain measurable correlates, and clarify the relationships between these variables and the voicer/nonvoicer distinction.

Over the course of the early exploration and the first two studies, there had been a great deal of opportunity to talk with friends, colleagues and subjects about their experiences and their observations of the concepts involved in this research. There seemed to be considerable agreement about a number of characteristics related to voicers and nonvoicers. The nature of these characteristics and, more importantly,

the nature of their relationship to the voicing phenomenon was not clear. The exploratory nature of the research to this point suggested the need for a general survey instrument which would probe as directly as possible at the factors which appeared related to voicer/nonvoicer. An instrument was developed to meet this need. Figure 1 lists these apriori factors and their hypothesized relationships to the voicer/nonvoicer distinction.

A PRIORI FACTORS HYPOTHEZIZED TO CORRELATE
POSITIVELY WITH VOICER

Social dominance
Conformity
Spotlight/embarassment
Focus (on detail)
Orderly
Imaginary playmate
Authority shy
Others' certainty
Talking to self doesn't disturb flow
Involuntary mind
Do right

A PRIORI FACTORS HYPOTHEZIZED TO CORRELATE
NEGATIVELY WITH VOICER

Provocative/argumentative
Independence
Decisive
Quickness

Figure 1.
The a priori factors and their hypothesized
relations to the voicer factor

The most direct means of probing these factors was to construct items specific to them, though some of the

factors coincided with some previously developed and tested scales which were incorporated into the instrument. For each of the factors, at least three items were constructed in order to provide a reliability check and prepare for the confirmatory factor analysis which was to follow. Appendix D shows the factors and the items which were included in each.

Method

The third study used all three voicer/nonvoicer descriptions in the manner of the second study. The order of these descriptions was changed as mentioned in Chapter 4 so that the most readable description was placed first. The descriptions were each followed by self-identification questions and by requests for global self-identifications. The remainder of the instrument consisted of the seventy three true-false items compiled to probe the fifteen apriori factors. The instrument for Study 3 is shown in Appendix C.

The instrument was given to 147 MSU undergraduate students in groups of between twenty and thirty.

Results

A confirmatory factor analysis (Hunter and Gerbing, 1982) was performed on the items which comprised the apriori factors. Items were assigned to

clusters according to three criteria: items within a given cluster correlate in such a way as to form a Spearman Rank 1 matrix; items within a given cluster correlate with items outside their cluster and with other clusters in a parallel manner, that is the correlations with variables outside their cluster are directly proportional to one another; items within a cluster are similar in content. The correlations were corrected for attenuation with reliabilities of items appearing in the diagonal of the correlation matrix. In this manner, the cluster scores represent statistically "true" scores, with measurement error removed.

Figure 2 shows the distribution of items in the apriori factors and their clustering as a result of the confirmatory factor analysis. The tight arrangement of the marks on the diagonal of Figure 2 confirms the apriori groups, though with some cleaning up of the individual clusters, or factors. Of the original seventy-three items in the inventory, fifty-five were retained in the final clusters. The voicer/nonvoicer distinction and the certainty response remained as factors of their own.

POSTERIORI	501	503	505	512	507	508	506	504	510	514	513	511	509	502	Reject
APRIORI															
Decisive	////														///
Quick	///														/
Independence		//	//	/											//
Spotlight/ embarrassment		//	/	///											/
Doright		//	/												/
Conformity			///	/	///										
Provocative/ argumentative	/	/				///	/								
Authority shy							///								
Social dominance								//	/						//
Others' certainty									/						//
Orderly															///
Talkself										/	//				/
Involuntary mind										//		//			//
Focus															////
Imaginary playmate													///		
Voicer															////

POSTERIORI FACTORS LIST

501 = QUICK	508 = ARGUER
502 = VOICER	509 = IMAGINARY PLAYMATE
503 = RULEBREAKER	510 = POOR BLUFFER
504 = SOCIAL DOMINANCE	511 = HARD TO SLEEP
505 = NEED APPROVAL	512 = SELF CONSCIOUS
506 = AUTHORITY SHY	513 = TALKING TO SELF AFFECTS THINKING
507 = DO EXPECTED	514 = ACTIVE HEAD

Figure 2.
Distribution of items in the
Apriori vs the Posteriori Factors

Table 12 shows the correlation matrix of the factors derived from the confirmatory factor analysis. Whereas the first two studies failed to provide any correlates for the voicer/nonvoicer distinction, this study shows a number of related factors. In particular, the Voicer/nonvoicer factor is most strongly correlated with Active Head ($r=.81$), moderately correlated with Self-consciousness ($r=.29$), Need for approval ($r=.26$), Indecisive ($r=.24$), and Imaginary playmate ($r=.24$).

Table 12.
Factor Correlation Matrix for Study 3
(decimals omitted)

	501	502	503	504	505	506	507	508	509	510	511	512	513	514
501	100	24	-44	-20	59	28	15	-8	27	18	26	52	-1	43
502	24	100	-9	-4	26	19	11	-4	24	-7	5	29	-18	81
503	-44	-9	100	48	-48	-24	-28	49	0	-56	-12	-39	1	-14
504	-20	-4	48	100	-48	-17	-15	20	3	-40	8	-34	-10	17
505	59	26	-48	-48	100	62	47	-12	-5	13	11	70	4	39
506	28	19	-24	-17	62	100	15	-11	3	17	-7	43	24	16
507	15	11	-28	-15	47	15	100	-13	-17	13	1	44	7	-7
508	-8	-4	49	20	-12	-11	-13	100	-5	-26	-8	4	16	-10
509	27	24	0	3	-5	3	-17	-5	100	6	14	12	-7	33
510	18	-7	-56	-40	13	17	13	-26	6	100	15	12	0	-14
511	26	5	-12	8	11	-7	1	-8	14	15	100	31	1	25
512	52	29	-39	-34	70	43	44	4	12	12	31	100	1	20
513	-1	-18	1	-10	4	24	7	16	-7	0	1	1	100	-21
514	43	81	-14	17	39	16	-7	-10	33	-14	25	20	-21	100

501 = NOT QUICK

502 = VOICER

503 = RULEBREAKER

504 = SOCIAL DOMINANCE

505 = NEED APPROVAL

506 = AUTHORITY SHY

507 = DO EXPECTED

508 = ARGUER

509 = IMAGINARY PLAYMATE

510 = POOR BLUFFER

511 = HARD TO SLEEP

512 = SELF CONSCIOUS

513 = TALKING TO SELF AFFECTS THINKING

514 = ACTIVE HEAD

Figure 3 shows one possible set of theoretical relationships between the factors produced by the confirmatory factor analysis. This figure is in the form of a path analysis diagram which shows both causal links (arrows pointing from the causative or antecedent factor to the caused or consequent factor) and the strength of each of the links. If a factor has only one antecedent, then the strength of the link (the path coefficient) is the correlation between the factor and its antecedent. If the factor has two or more antecedents, then the path coefficients are the beta weights produced by doing a multiple regression of the factor on its antecedents. Normally, the path analysis diagram is derived directly from an *a priori* theoretical model. In this case, however, there were no existing theories which appeared to apply to the voicer/nonvoicer distinction. The path diagram shown in this study was derived from a combination of hypotheses developed over the course of the study and directions suggested by the correlations themselves.

A path analysis was performed on the factor correlation matrix and based on the theoretical model in Figure 3. Tables 13-15 show the path coefficients, the reproduced correlation matrix and the error (observed minus predicted) correlation matrix for the path model shown in Figure 3.

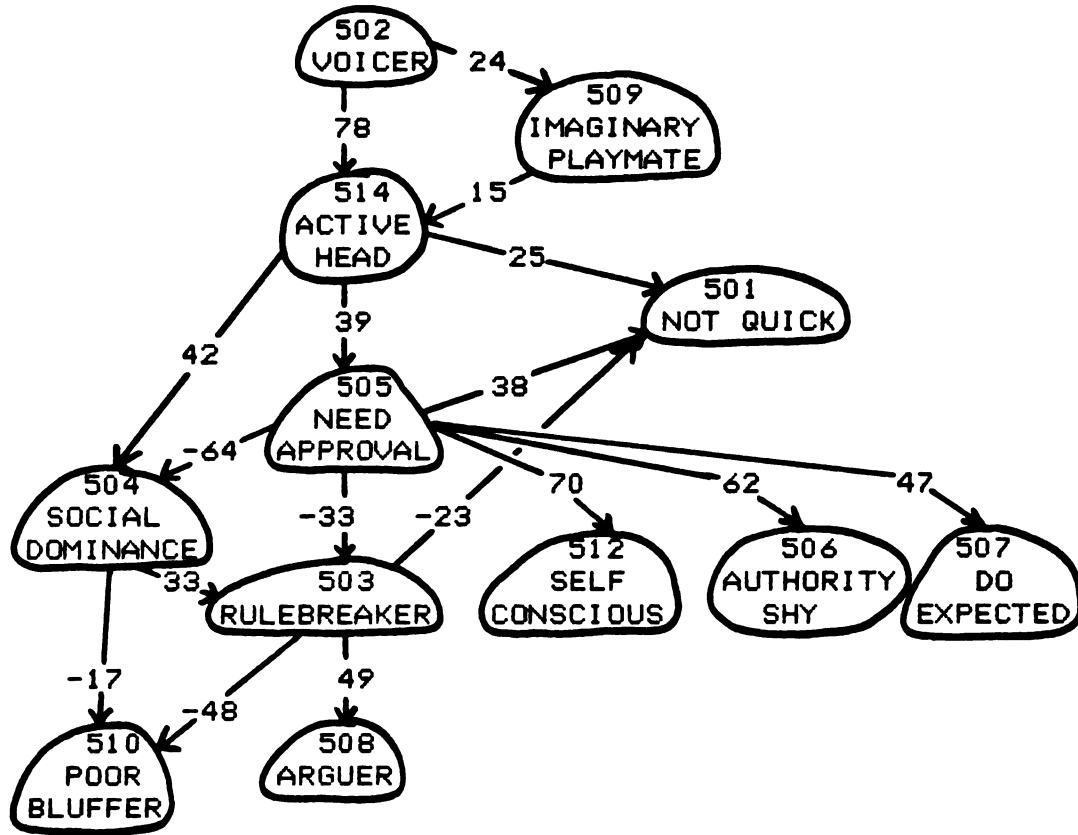


Figure 3.
Path diagram for Study 3
with path coefficients indicated

Table 13.
Path analysis coefficients for Study 3
(decimals omitted)

	502	509	514	505	504	503	510	508	512	506	507	501
502	0	0	0	0	0	0	0	0	0	0	0	0
509	24	0	0	0	0	0	0	0	0	0	0	0
514	78	15	0	0	0	0	0	0	0	0	0	0
505	0	0	39	0	0	0	0	0	0	0	0	0
504	0	0	42	-64	0	0	0	0	0	0	0	0
503	0	0	0	-33	33	0	0	0	0	0	0	0
510	0	0	0	0	-17	-48	0	0	0	0	0	0
508	0	0	0	0	0	49	0	0	0	0	0	0
512	0	0	0	70	0	0	0	0	0	0	0	0
506	0	0	0	62	0	0	0	0	0	0	0	0
507	0	0	0	47	0	0	0	0	0	0	0	0
501	0	0	25	38	0	-23	0	0	0	0	0	0

Table 14.
Reproduced factor correlations for Study 3
(decimals omitted)

	502	509	514	505	504	503	510	508	512	506	507	501
502	100	24	81	32	14	-6	1	-3	22	20	15	34
509	24	100	33	13	6	-2	0	-1	9	8	6	14
514	81	33	100	39	17	-7	1	-4	27	24	18	42
505	32	13	39	100	-48	-48	31	-24	70	62	47	59
504	14	6	17	-48	100	48	-40	24	-33	-29	-22	-25
503	-6	-2	-7	-48	48	100	-56	49	-34	-30	-23	-43
510	1	0	1	31	-40	-56	100	-27	22	19	15	24
508	-3	-1	-4	-24	24	49	-27	100	-17	-15	-11	-21
512	22	9	27	70	-33	-34	22	-17	100	43	33	41
506	20	8	24	62	-29	-30	19	-15	43	100	29	36
507	15	6	18	47	-22	-23	15	-11	33	29	100	28
501	34	14	42	59	-25	-43	24	-21	41	36	28	100

Table 15.
Observed minus predicted correlations for Study 3
(decimals omitted)

	502	509	514	505	504	503	510	508	512	506	507	501
502	0	0	0	-5	-18	-3	-7	-1	7	-1	-4	-10
509	0	0	0	-18	-2	3	5	-4	3	-5	-23	13
514	0	0	0	0	0	-7	-14	-6	-8	-9	-25	2
505	-5	-18	0	0	0	0	-18	12	0	0	0	0
504	-18	-2	0	0	0	0	0	-4	-1	12	8	4
503	-3	3	-7	0	0	0	0	0	-6	6	-5	-2
510	-7	5	-14	-18	0	0	0	1	-10	-2	-2	-6
508	-1	-4	-6	12	-4	0	1	0	20	4	-2	13
512	7	3	-8	0	-1	-6	-10	20	0	-1	11	11
506	-1	-5	-9	0	12	6	-2	4	-1	0	-14	-9
507	-4	-23	-25	0	8	-5	-2	-2	11	-14	0	-12
501	-10	13	2	0	4	-2	-6	13	11	-9	-12	0

THE SUM OF SQUARED DEVIATIONS IS 0.50

$$\chi^2=12.21 \quad df=66-17=49 \quad p>.50$$

In the reproduction of the correlations from the path diagram, the estimated correlation from the model depends on the length of the causal paths which go into that estimate. The longer the causal path, the greater the cumulated error in the estimate of the predicted correlation. For a sample size of 147 and using the average reliability of .60, the standard error of each correlation should be about .15 if the model fit the data exactly and all errors were due to sampling error. The path diagram shown in Figure 3 provides a reasonable fit with the data of Study Three. The Chi-square for the matrix in Table 15 is 12.21 (df=49 p>.50) which suggests no significant departure from model predictions. It should be noted that the diagram

shown in Figure 3 is not necessarily the only diagram which would fit the available data. In theory, there could be many alternate diagrams which could also provide an adequate fit. There is currently no methodology which can develop all possible well-fitting diagrams, nor is there a statistical means of determining a best-fitting diagram. The diagram presented here constitutes one interpretation of the data available. The fact that the path analysis shows this diagram to fit the data indicates that this interpretation is not contradicted by the data.

The Voicer/nonvoicer distinction is an exogenous variable in this model, i.e. a variable which is causal for the other variables but not caused by them. This is in keeping with the objectives of this study which sought to determine consequences of the voicing phenomenon rather than antecedents. The model also shows that most of the effects of the voicer/nonvoicer distinction are channeled through the Active head factor. This suggests that the characteristics which were believed to be related to voicers were the more direct result of the Active head factor which was, in turn, largely the product of the Voicer/nonvoicer factor.

The path diagram suggests that being a voicer directly influences whether or not a person experiences

some kind of "talking going on in my head". This is even more the case if they had had an imaginary childhood playmate. This internalized voicing, along with a need for approval and a tendency to be rule-bound, appears to slow down the decision-making process. The internalized voicing also directly affects the need for approval. Both the indecisiveness and the enhanced need for approval were characteristics which had been noted in voicers in general, and it was no surprise to see them related to the phenomenon thus in the data. It was somewhat surprising, however, to see the positive relationship between voicing and social dominance, rulebreaking, bluffing and arguing. Up to this point, the emphasis had been on viewing the voicing phenomenon as a manifestation of a hostile and domineering superego-like function. The major characteristics observed had been those of indecisiveness, submissiveness, insecurity and the like. Now the data shows the presence of a substantial minority of what might be termed dominant voicers. These are people who experience the voicing phenomenon yet have a low need for approval. They feel confident and secure in social situations, even to the point of enjoying arguments and bluffing for their own sake. This character pattern of a self-assured voicer was not anticipated.

A number of theories could serve to explain the self-assured voicer. Such a character pattern could be the result of a maturation of the hostile, accusing voice into a more helpful and supportive one. This supportive voice could then serve as a foundation of inner strength and security. Another possibility is that the individual has reached some kind of accomodation with the hostile voice, turning its criticism outward and adopting its tyrannical nature. Yet another possibility which would fit the data is that the self-assured voicer and the submissive voicer are but two aspects of each individual voicer, with the relative proportions of dominance and submissiveness varying over time.

Conclusions

The search for consequent variables was considerably more fruitful than that for antecedent variables. Most of the variables which had been hypothesized to correlate with the voicer/nonvoicer distinction did so. Furthermore, the path analysis indicated that the voicer/nonvoicer distinction is, in fact, causally antecedent to the other variables. This supports the supposition which had begun this study, that there was a phenomenon of conscious experience which meaningfully separated people into two groups and

which was the cause of a number of observable characteristics. The voicer/nonvoicer distinction determines the extent to which a person experiences active internal voicing. This, in turn, has a significant effect upon their levels of need for approval, ability to make quick decisions, tendency towards bluffing and being argumentative, willingness to confront authority figures and self-consciousness.

The positive correlations with social dominance, rulebreaking, bluffing and arguing provided a new development in the study of the voicer/nonvoicer distinction. The data appear to indicate two groups among voicers, one which is rather shy and retiring and another which is more assertive. The presence of a significant number of assertive voicers had not been suspected prior to this study, and suggests even more strongly that the voicer/nonvoicer distinction does not represent an impediment to effective behavior, but rather a channel or style by which character develops.

CHAPTER VI

DISCUSSION

This project began with an observation of what seemed to be a phenomenon of conscious thought shared by only a part of the population. This distinction between people may be described as the experiencing of thought as a dialogue for some and as a monologue for others. The dialogue of conscious thought is often portrayed as an internal voice, an aspect of the self which advises and/or berates the individual. For voicers, those who experience the internal voice, conscience is an explicit conscious phenomenon. The internal voice typically uses the second person form of address, is not voluntarily called into being, and is not voluntarily silenced. For nonvoicers, those who do not experience an internal voice, conscience is an abstract concept. There is no internal dialogue, no inner verbal experience referring to them in the second person. It is not uncommon for the nonvoicer to experience periods in which there is no conscious verbal thought, while this is most unusual for the voicer. Once this distinction was observed, it became possible to describe it to others and establish that

people seemed able to identify strongly with one or the other of the types of thought, but not both.

The goals of these studies were twofold: to provide a means of measuring the presence or absence of the phenomenon in a given individual, thus showing both that it exists and that it is not universally experienced, and to establish some connections between the phenomenon and other variables to provide some direction for future research.

The first of these goals met with clear success, and the ability to distinguish between voicers and non-voicers on the basis of a fairly brief paper-and-pencil, self-identification questionnaire is well established. Voicers and non-voicers make the respective self-identifications reliably and with a strong sense of certainty regarding their decision. Furthermore, the college population appears to be roughly evenly split between voicers and non-voicers.

The second of the goals, that of making an initial connection between the voicer/non-voicer dimension and other relevant variables, met with mixed results. No factor was found which seemed to be a determinant of the voicing phenomenon, but a number of factors were shown to be dependent on this dimension.

Efforts to identify the voicing as a particularly hostile introjected object failed to do so. Voicers

were no more likely to identify their parents (or either parent) as hostile or angry than were non-voicers. This may be due to some form of compensation to provide a balancing of the introjected parent. It appears more likely, however, that there is simply no real difference between voicers and non-voicers in terms of the harshness of their parents; that the voicing phenomenon is not "created by" an unusually severe parent, but is rather a natural occurrence which, when present, may well use the parental anger and harshness as a model for its action. In the absence of the voicing, the parental anger and harshness simply takes on a more abstract form within the psychic structure. Similarly, efforts to identify the voicing as a consequence of lonely, unhappy or traumatic childhood did not succeed. The voicer/non-voicer dimension appeared to be independent of all the antecedent variables measured. It is thus not clear at this time whether the voicing phenomenon is biologically determined, genetically determined, environmentally determined, or determined by some combination of all of these.

Though no determining factors were found for the voicer/non-voicer dimension, the dimension was found to be a causal factor for a number of other variables. The voicing is related in childhood to having an

imaginary playmate and in adulthood to internal verbalizations and constant mental activity. Voicers appear to split into two groups, one group dependent, self-conscious and unsure of themselves, having difficulty making decisions and facing authority figures, and the other group feeling more secure, socially dominant, decisive and prone to being argumentative and not governed by rules.

RECOMMENDATIONS FOR RESEARCH

The factors which produce the voicer/nonvoicer dimension are still unknown. It is unlikely that these factors are as simple as the presence or absence of angry parents, or the relative happiness of one's childhood. It seems equally unlikely, however, that there would be no connection between the internalization of early objects and at least the nature and quality which characterizes a person's internal voice. Several possible approaches into this concern are possible. The use of a more extensive life-history questionnaire would provide a more conclusive statement regarding the correlations between the voicer/nonvoicer dimension and the variables of early life. From the reports of voicers who state that they have experienced the phenomenon for as long as they can remember, and from the work of Klein who so

firmly places the development of superego functioning in the first few years of life, it seems reasonable to focus on the events of these first few years as the likely factors involved in the origin of the distinction between voicers and nonvoicers. One line of approach might be to follow a life-history questionnaire of subjects who have responded to the voicer/nonvoicer instrument with a survey of their parents seeking information regarding the subject's temperament as an infant. This data might also prove useful in determining possible reasons for the observed split among the voicers between the insecure and the socially dominant types.

If there are biological factors involved in the development of the voicer/nonvoicer dimension, then they are likely to be somewhat difficult to uncover since the current instrument can be used effectively only on young adults and the biological factors involved would be working in early infancy. A genetic study could be run which would administer the voicer/nonvoicer instrument to members of a family tree. A broader range of subjects should also be run to determine if there are any racial or ethnic precursors to the voicing phenomenon. The subject population of these studies was above average in intelligence, and this factor, too, should be

considered as being potentially related to the development of the voicer/nonvoicer dimension. Finally, it would be possible to include the voicer/nonvoicer instrument in among the tests in longitudinal studies starting in early infancy, or simply to seek out the subject populations of such studies and administer the instrument separately from the study. Assuming that access to the original data of such a longitudinal study could be obtained, it would be possible to test some of the hypotheses connecting early infancy to the presence of the voicing phenomenon in adults.

There are more clear-cut lines of research opened in terms of expanding and enhancing the network of variables which are affected by the voicer/nonvoicer dimension. Of particular interest would be the clarifying of the characteristics which distinguish the insecure voicers from the socially dominant ones. Having established a "beachhead" of sorts, it is somewhat easier to begin to tie in the voicer/nonvoicer dimension with existing research instruments. Prior to the last of the three studies in this project, choosing any instrument, such as the MMPI or the 16 PF, seemed to risk getting nonsignificant and/or uninterpretable results, in part due to the ambiguity of the scales themselves. The desire to "nail down" at least some

aspects of the voicer/nonvoicer dimension led to the development of a new questionnaire probing directly at variables determined from subjective observation. With some of these variables now confirmed by the new data, it should be easier to relate the results of more formalized instruments to the constellation of factors resulting from the voicer/nonvoicer dimension.

An area of particular interest not directly covered in these studies is the relationship of guilt to the voicer/nonvoicer dimension. There is certainly a relation, if only in content and character, between the voicing phenomenon and the more traditional concepts of conscience. This leads readily to the question of whether there are two forms of conscience, that experienced by voicers and that experienced by nonvoicers. If conscience, and by extension guilt, are not unimodal concepts but rather divided into voicer-conscience/guilt and nonvoicer-conscience/guilt, then there might be considerable variation in the individual response to "guilt inducing" situations. If such variation exists, then there would need to be a reworking of some of the theoretical formulations surrounding conscience and guilt. One such formulation made by Mowrer(1970) suggests that the sociopath-normal dichotomy needs to be expanded to include sociopaths, normals, and neurotic normals (i.e. people with

conscience who nevertheless commit crimes). The presence of voicers who are rulebreakers, though not apparently neurotic, might produce a fourth category. The presence of nonvoicers, potentially lacking a conscience in the traditional sense, who fail to commit crimes based on enlightened self-interest may produce yet another category. In either case, the addition of the voicer/nonvoicer dimension serves to enhance the descriptive nature of such theories and, in combination with data relating the voicer/nonvoicer dimension other aspects of social behavior, may help to link these theories with observed behavior.

CONCLUSION

What began as a chance observation has resulted in the demonstration of a dimension of human experience which has been previously overlooked, yet one which exists as a causal factor for a number of personality characteristics. It describes a fundamental aspect of conscious experience which is present from early childhood through adult life. Its existence poses serious questions for traditional approaches to cognitive structure and the mechanisms of internalization and introjection. The differences between voicers and nonvoicers suggest the need to question the assumption that everyone experiences

consciousness in much the same way, and they offer some new perspectives on a broad range of human experiences, most especially those of conscience and guilt. The voicer/nonvoicer distinction provides some insights into potential communication problems, especially over issues of internal experiences, and gives some new meanings to previously "common" terms.

This thesis is only a beginning into the research of a basic characteristic of human conscious thought. The three studies reported herein provide future researchers with a ready means of measuring the voicer/nonvoicer distinction, and give some initial indications of the relationship of this variable to other personality characteristics.

Appendix A

The Study 1 Instrument

A DISCOVERY ABOUT CONSCIOUSNESS

I would like to share a discovery that was made about two years ago. Two people were talking and the first jokingly made a reference to some naughty thing the second might do. "Oh, I couldn't do that," the second replied, "my conscience would torture me for days. It would just call me names for hours on end." The first person was curious about this and initiated a long conversation in which both made a startling discovery. The first person learned that the second did have an internal voice and could discuss matters with this voice. The second was astounded to learn that the first person had no such voice and experienced thinking as a conscious, nonverbal, "silent" process of internal thought generation. The closest the first person ever came to having a voice was in the act of mentally playing a role or practicing a speech, but this subvocalization was very different in character from the second's internal voice.

Over the next two years, both people discretely questioned their closest friends to determine whether others did or did not have internal voices that "talked to them." The number of people sampled was very small, less than twenty people, but there were some interesting correlates. About half of the people questioned reported having an internal voice and half reported none. People with an internal voice, "volcers", indicated that the voice is nearly always active, except when they are engaged in reading or other similarly engrossing thought. Something is always "going on" in their minds, for they are either intently thinking or they are listening to or interacting with their voice. On the other hand, the people without an internal voice, "non-volcers", often experience periods where their minds are just blank, with nothing going on at a conscious level. When the internal voice exists, it can be of any sex; there can be more than one internal voice, or the internal voice may take on different attitudes; the internal voice can be a "conscience" (judging), "friend" (supportive), or a "devil" (goading); the female volcers tended to report more constant activity of their internal voices while the male volcers reported distinct activity only in times of worry or stress; volcers could not recall ever not having an internal voice; volcers regard the internal voice as important to them and as one of the central features of their mental life. Non-volcers give the appearance of being somewhat more rationally minded than volcers, though they are not free from irrationality; volcers give the appearance of being more intuitively minded than non-volcers, though not exclusively so.

I wonder whether while reading this you have come to feel yourself associated to some extent with either of these groups. Please bear in mind that all of the abovementioned "facts" are really no more than generalizations made from a very small sample. For any really meaningful statements to be made, it is essential that a larger sample be measured. This is why I am coming to you now with a statement and a request.

STATEMENT: There appears to be an aspect of human mental life which is not the same for all people, but separates them into two groups. The members of one group have lived with and had as an integral part of their existence an internal voice. They can, for instance, very naturally view conscience as a real thing, speaking to them or advising them from within their own minds and view feeling guilty as a period of chastisement and berating by the voice. The members of the other group have lived without any such partner or auxiliary cognitive process. Conscience to them would be simply an abstract set of ethical and moral beliefs, and feeling guilty would be a period of general distress. Neither group is "abnormal"; volcers are not hallucinating and non-volcers are not deficient. Neither group is "better" or "worse" than the other, they are simply different.

REQUEST: It is understood that examining one's mental life is at the same time exciting and sensitive. With this in mind, I ask you to help me by filling out the questionnaire as openly and honestly as possible. Confidentiality will be maintained, but we ask that you include your name and phone number so that we might contact you later for more information. If anything not on the questionnaire seems relevant to you in regard to this issue, please include it in the space indicated.

INTERNAL VOICE QUESTIONNAIRE

If you had to answer one way or the other, would you say you were a:

Voicer_____ Non-voicer_____

How confident are you about your answer?

Very confident 1 2 3 4 5 Not at all confident

Sex: Male_____ Female_____

Date of birth: Month_____ Day_____ Year_____

Order of birth (first born, second, etc.):_____

Number of children in family:_____

Ethnic background (racial, national, etc.):_____

Religious background:_____

Profession (if student, major and year):_____

If you had to memorize a complex chemical formula, would you rather:

develop an image of the relationships between the various elements of the formula

invent various memory tricks (e.g. mnemonics) to help remember it
memorize the formula by rote, as it is given

How would you rate the following in terms of your childhood?

Parents very strict	1	2	3	4	5	Parents very permissive
Much family interaction	1	2	3	4	5	Min. family interaction
Very emotive	1	2	3	4	5	Not at all emotive
Religion stressed	1	2	3	4	5	Religion ignored
Solitary	1	2	3	4	5	Many friends
Very happy	1	2	3	4	5	Very unhappy
Very self-critical	1	2	3	4	5	Not at all self-critical

How would you rate the following in terms of your current life?

Much family interaction	1	2	3	4	5	Min. family interaction
Very emotive	1	2	3	4	5	Not at all emotive
Religion stressed	1	2	3	4	5	Religion ignored
Solitary	1	2	3	4	5	Many friends
Very happy	1	2	3	4	5	Very unhappy
Very self-critical	1	2	3	4	5	Not at all self-critical

Did you have an imaginary childhood playmate? Yes_____ No_____

Are you often tempted to speak aloud to yourself? Yes_____ No_____

(OPTIONAL: if you are willing to be included in a follow-up study)

Name_____ Phone_____

Address_____

If there are any ideas, facts or questions which you feel are relevant to this study, please write them on the back of this questionnaire.

If your answer to the first question was "Non-voicer", you have completed this questionnaire. Thank you very much.

VOICERS: How many voices would you say you had?

Is there a specific gender (male or female) to your voice*? If so, what is it?

How would you characterize your voice?

What kinds of things are said, and in what tone of voice?

Has the nature of your voice or your interaction with it changed over the years?
If yes, in what way?

Is there any time your voice is more likely to manifest itself? If yes, when?
If no, because it is generally always apparent or because it is rarely apparent?

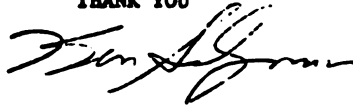
*The singular of voice will be used throughout to save time, grammar, and our typist. Thank you very much.

Appendix B

The Study 2 Instrument

A friend and I have been studying and arguing about certain mental processes. We are now ready to quit studying our close friends and ask how things appear to other people. We have put together this survey which describes what we are looking at. Our perceptions and descriptions differ slightly, and there are, therefore, three separate descriptions enclosed. Please read the descriptions, bearing in mind that they are all attempting to describe the same phenomenon. All three of the write-ups ask you whether you can identify with the described phenomenon. We would like you to respond to the descriptions in two ways. After you read each description, classify yourself on the basis of your reading of that description only. Then after reading all three descriptions classify yourself again on the basis of your overall understanding. If, after reading all of them, you are still unable to identify yourself, I would like to discuss the concept with you for a few minutes if you would be willing to give me your phone number. Any questions or comments on this survey or on the phenomenon would be most appreciated (my phone number is 485-5151 after 5:00).

THANK YOU

A handwritten signature in black ink, appearing to read 'Ken Salzman', written in a cursive style.

Ken Salzman

A DISCOVERY ABOUT CONSCIOUS THOUGHT

It has been generally believed that the experience of conscious thought is essentially the same for everyone. Recent evidence, however, seems to indicate that there is at least one aspect of conscious thought which is not the same for all people and separates them into two groups: the two ways people experience conscious thought appear to be quite distinct. What follows are descriptions of the two modes of thought, but please keep in mind that these descriptions are based on a fairly small group of people and may be inaccurate to some degree. Although statements are phrased as fact, remember that they are really tentative conclusions and observations drawn from a small sampling of the population. Also be aware that one description is likely to seem familiar, while the other may appear foreign, alien, or even provoke incredulity.

The people of one group experience conscious thought as a nonverbalized process by which concepts are juggled, merged, redefined and reordered, out of which are produced conclusions and new views. Thinking is a real process but is not readily subject to description, as it is a flow of concepts and relations which, though usually governed by rules of logic and reason, is not generally perceived as a step-by-step operation. It is difficult for a member of this group to examine the thinking at a given moment because the train of thought becomes interrupted by such introspection and cannot be easily put into words. Values are frequently held as subjective constructs, established by decision, rather than by any sense of an objective absolute. "Conscience" refers to an abstract set of ethical and moral beliefs, and guilt is perceived as a general feeling of distress. The members of this group often experience periods where there is no particular line of thought, especially conscious verbal thought, going through their minds. In response to the question, "What are you thinking about?" they may, in all honesty and candor, answer, "Nothing," although some may say instead, "Oh, hundreds of things." Both are true in that there is no single topic, theme, or subject occupying their conscious minds at the time, yet they are aware of their surroundings and current events. There is an important difference for this group between thinking and verbalization of thought. Since the single strongest characteristic of this process is its nonverbal nature, it is called implicit conscious thought.

The members of the other group experience conscious thought as a clearly verbal process, i.e., one which is carried out in a word-by-word fashion. Several distinct lines of thought may occur at the same time producing a multiplicity of perspectives, positions and attitudes regarding any subject under consideration. Thinking is a real process and can be described readily, but difficulty often arises over the fact that there are actually several thoughts running on parallel tracks simultaneously, sometimes taking the form of an internal dialogue. Each track is a logical process, but the conclusions drawn on one track do not necessarily prevent contradictory conclusions being drawn at the same time on other tracks. While introspection of the thinking process may disrupt one or more lines of thought, it is not generally disruptive to the process itself. Since the thinking is done on a verbal level, a train of thought can quite easily be put into words by members of this group. Values are frequently held as having an absolute nature, although competing values can both be held at once. Conscience is often experienced as one of the "voices" in their dialogue speaking to them or advising them from within their own minds. Feeling guilty is typically perceived as a period of internal chastisement from such a voice or parallel thought track. It is not unusual for a thought track to be uncomfortable to the individual and to spontaneously

 **very**  **sure**  **hesitant**  **doubtful**  **just**
guessing

A DISCOVERY ABOUT CONSCIENCE

Friends:

I would like to share a discovery with you that I made about two years ago. One afternoon I was sitting and talking to Martha K , and I jokingly made a reference to some naughty thing that she might do. Martha replied, "Oh, I couldn't do that, my conscience would torture me for days." At that reference to "torture" my curiosity was piqued and I asked her, "What do you mean by torture? What exactly does go on in your head when your conscience tortures you?" And then she told me the most astounding things that I have ever heard (though about half of you will not be surprised): She said, "He would just call me awful names for hours on end." And that floored me because what I understood her to say was that she heard a little voice in her head that talked to her. And, after a long conversation, this turned out to be exactly true; her conscience was a distinct male voice that would spew out a stream of insults such as "filthy, worthless, dirty, ungrateful, etc."

Then, after awhile, I made a confession to Martha that stunned her as much as her's had surprised me. I told her that I had never heard any kind of voice in my head, not mine, not anybody's (though about half of you will not be surprised to hear that). To me the word "conscience" has never been any more than a metaphor for "thinking about the ethical consequences of an act." And by "thinking" I mean a silent process of internal thought generation. Only if I am playing a role or practicing a lecture do I engage in the subvocal speech that sounds to me like my own voice speaking (which, of course, it is). Martha asked me, "Do you mean that your head is just blank with nothing going on?" And I replied that was often true, though silent thought is still thought.

In the two years since then I have been slowly checking through everyone that I know well enough to ask such a personal question. First, I told my wife about Martha. And Ronda said, "Of course, everybody has a conscience." And I said, "But you mean a little voice in your head that is always talking to you?" She said, "He doesn't always talk, only when he wants to tell me what to do or what to say or what not to do or what to be afraid of or...." After she really started listening, for the next several months, she told me that he only shuts up if she is reading or doing a lot of heavy thinking (i.e., -math problems or related introspection, etc.). Otherwise, her head is rarely blank, one of them is almost always talking.

All in all, about half my friends have "little voices" that talk to them in their heads, and half of my friends do not. Some of those who have "little voices" have voices of the opposite sex, some have voices of the same sex, and some say that they can't really tell. Among my friends, women are more likely to have a little voice, and those women who do have a little voice say that it is frequently vocal. My male friends are more likely to say that their little voice only comes out in times of stress or worry, when they get messages such as "You can't do that, that's terrible," or "If you weren't so stupid, you would have had that thesis done months ago." Everyone who I've met who has a little voice says that it goes as far back in time as they can remember (including my son, who at 5 could not remember not having a little voice).

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Nor is the development a simple matter of family. My son has a little voice but my daughter does not. And, by the way, some people have more than one little voice. They have a little "devil" as well as a "conscience," i.e., some people hear a little voice that eggs them on to try new and "scary" or "bad" things that might be fun or might bring pleasure. In any case, almost everyone who had a little voice regards it as important to them (whether for good or for ill) and as one of the central feature of their mental life.

Are people without little voices more rational? Among the small and highly select set of people that are my immediate friends the answer is "yes." Those of us without little voices are much less susceptible to extreme mood shifts, and are much less likely to be blatantly inconsistent with our values from one time to another. After all, there is only one voice to speak to our affairs. In particular, from the sample that I've known, those of us who have no little voice are much less likely to get angry, very much less likely. But, on the other hand, during the last 2 years I have gotten angry at people whom I've never met (such as Richard Nixon and the people who want to censor violence from TV and....), I've worried over future events that are outside my power to control ("They never publish anything of mine"). I have furiously overworked, and then been highly depressed because I overwork, etc. So, I too am subject to irrational emotional states, to acting for the moment against my own long-term interests, to making thoughtless remarks, and all the other foibles of other members of the human race. It's just that I don't have a little voice to tell me "You shouldn't feel like that, that's bad," or "You should call your parents more often, you ungrateful child," or "How dare they do that to you? Who do they think they are?" You don't have to take that crap...." Instead, I simply go through life alone.

AN ANNOUNCEMENT

On the basis of my experience, I do know that I have two momentous announcements to make. First, to those who have no little voice. Lots of people "hear" a little voice which tells them what they should do, what they should not do, and whether their past acts and feelings are good or bad. Furthermore, this is no hallucination. These people know perfectly well that the little voice is inside their head and that no one else can hear it. Moreover, they are perfectly normal people. You can easily live 13 years with one and never guess what's going on inside their head. They never stop to tell you about the little voice because "everyone has one" and, when they do refer to it, they call it "I" or "me," etc.

To those of you who have a little voice (or more): lots of us don't. If you ask a person what he's thinking and he says "nothing" it may be true. If a person tells you, "I never feel guilty about the past," or "I rarely get angry," or "I get annoyed, but I never get mad" then there is a very good chance that he is telling the simple truth. There are a lot of us who have no true conscience in the old-fashioned sense of the word. Yet we are not uncontrollable beasts or monsters. I may be pretty weird, but I have a friend without a little voice who is impeccably conservative in dress and life style, and who is described by everyone as "warm, soft-hearted, and friendly."

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THE NEED FOR RESEARCH

There is only one statement above which is beyond doubt. There are two kinds of people; i.e., those who have a little voice and those who do not. Every other statement above is based on the unsystematic study of fewer than 20 people. And those people are all either my close friends or friends of my close friends and do not even begin to approach a random sample of Americans, much less humanity at large.

Thus, virtually every question that there is to ask about the little voice or its absence is still completely unanswered. If some of the crude hypotheses that I stated above seem more than tentative, then I apologize for my writing style. I am enthusiastically interested in the answers and like most people, I tend to overrate the generality of my experience.

WE WANT YOU

And, so we come to you, dear friend. We would like to know where you stand on this question and we would like to know anything that you might think might be relevant about yourself in regard to this issue. So, if you will and can, we would dearly love to have you fill out our questionnaire.

Questions:

1. From what you have read above, would you say that some of your thoughts take the form of an internal "voice"?



I hear an internal "voice"



I have had no such experience

2. How confident do you feel about this judgement?

☐
very
sure

☐
sure

☐
hesitant

☐
doubtful

☐
just
guessing

A DISCOVERY ABOUT CONSCIOUSNESS

I would like to share a discovery that was made about two years ago. Two people were talking and the first jokingly made a reference to some naughty thing the second might do. "Oh, I couldn't do that," the second replied, "my conscience would torture me for days. It would just call me names for hours on end." The first person was curious about this and initiated a long conversation in which both made a startling discovery. The first person learned that the second did have an internal voice and could discuss matters with this voice. The second was astounded to learn that the first person had no such voice and experienced thinking as a conscious, nonverbal, "silent" process of internal thought generation. The closest the first person ever came to having a voice was in the act of mentally playing a role or practicing a speech, but this subvocalization was very different in character from the second's internal voice.

Over the next two years, both people discretely questioned their closest friends to determine whether others did or did not have internal voices that "talked to them." The number of people sampled was very small, less than 20 people, but there were some interesting correlates. About half of the people questioned reported having an internal voice and half reported none. People with an internal voice, "voicers," indicated that the voice is nearly always active, except when they are engaged in reading or other similarly engrossing thought. Something is always "going on" in their minds, for they are either intently thinking or they are listening to or interacting with their voice. On the other hand, the people without an internal voice, "non-voicers," often experience periods where their minds are just blank, with nothing going on at a conscious level. When the internal voice exists, it can be of any sex; there can be more than one internal voice, or the internal voice may take on different attitudes; the internal voice can be a "conscience" (judging), "friend" (supportive), or a "devil" (goading); the female voicers tended to report more constant activity of their internal voices while the male voicers reported distinct activity only in times of worry or stress; voicers could not recall ever not having an internal voice; voicers regard the internal voice as important to them and as one of the central features of their mental life. Non-voicers give the appearance of being somewhat more rationally minded than voicers, though they are not free from irrationality; voicers give the appearance of being more intuitively minded than non-voicers, though not exclusively so.

I wonder whether while reading this you have come to feel yourself associated to some extent with either of these groups. Please bear in mind that all of the above-mentioned "facts" are really no more than generalizations made from a very small sample. For any really meaningful statements to be made, it is essential that a larger sample be measured. This is why I am coming to you now with a statement and a request.

STATEMENT: There appears to be an aspect of human mental life which is not the same for all people, but separates them into two groups. The members of one group have lived with and had as an integral part of their existence an internal voice. They can, for instance, very naturally view conscience as a real thing, speaking to them or advising them from within their own minds and view feeling guilty as a period of chastisement and berating by the voice. The members of the other group have lived without any such partner or auxiliary cognitive process. Conscience to them would be simply an abstract set of

-2-

ethical and moral beliefs, and feeling guilty would be a period of general distress. Neither group is "abnormal;" voicers are not hallucinating and non-voicers are not deficient. Neither group is "better" or "worse" than the other, they are simply different.

REQUEST: It is understood that examining one's mental life is at the same time exciting and sensitive. With this in mind, I ask you to help me by filling out the questionnaire as openly and honestly as possible.

Questions:

1. Now that you have read this description, how would you classify yourself?

☐
Voicer

☐
Nonvoicer

2. How confident do you feel about this judgement?

☐
very
sure

☐
sure

☐
hesitant

☐
doubtful

☐
just
guessing

Questions About Overall Assessment

You have now read three descriptions of the same phenomenon with three sets of labels.

1. How would you characterize your own mode of thought?

☐
~~E~~xplicit conscious thought
Internal voice
Voicer

☐
~~I~~mplicit conscious thought
No internal voice
Non-voicer

2. How confident do you feel about this judgement?

☐
very
sure

☐
sure

☐
hesitant

☐
doubtful

☐
just
guessing

3. Which label do you prefer for yourself?

-3-

4. Which description was most helpful in figuring out what we are talking about?

- A) A Discovery about Conscience
- B) A Discovery about Consciousness
- C) A Discovery about Conscious Thought
- D) Combination of the above (please specify):

5. We would like to see any criticism that we might use in writing a new description of the phenomenon.

- (a) Do you think any of the descriptions were particularly vague?
- (b) Do you think any of the descriptions was either derogatory or complementary in tone?
- (c) *** Most important *** Is there anything important that was left out of all three descriptions?
- (d) Any other comments on the descriptions?

BIOGRAPHICAL QUESTIONS

Your sex: Male _____ Female _____
 Date of birth: Month _____ Day _____ Year _____
 Birth order in family (1st of 3, 2nd of 7, only child, etc): _____
 Ethnic background (national, racial): _____
 Religious background: _____
 Profession (if student, major and year): _____

If you had to memorize a complex chemical formula on short notice, which method would you be most successful using?

- _____ Develop an image of the relationships between the various elements of the formula
 _____ Invent memory tricks (e.g., mnemonics)
 _____ Memorize the formula as given by rote

Assume you are in a gift shop and want to buy a certain statue; there are five of these statues on the shelf, identical in every respect including color, size, condition and price. Would you:

- _____ just take one off the shelf after, at most, a cursory check to make certain they are the same
 _____ have trouble deciding among them and spend some time looking for any criterion by which to choose one over the others
 _____ other (please specify) _____

Did you have an imaginary childhood playmate? Yes _____ No _____
 Are you often tempted to speak aloud to yourself? Yes _____ No _____

How would you rate the following in terms of your childhood?

Father very strict	1 2 3 4 5	Father very permissive
Mother very strict	1 2 3 4 5	Mother very permissive
Father often angry	1 2 3 4 5	Father rarely angry
Mother often angry	1 2 3 4 5	Mother rarely angry
Self often angry	1 2 3 4 5	Self rarely angry
Father generally happy	1 2 3 4 5	Father generally unhappy
Mother generally happy	1 2 3 4 5	Mother generally unhappy
Self generally happy	1 2 3 4 5	Self generally unhappy
Much family interaction	1 2 3 4 5	Minimal family interaction
Religion stressed	1 2 3 4 5	Religion ignored
Solitary	1 2 3 4 5	Many friends
Generally successful	1 2 3 4 5	Generally unsuccessful
Very self-critical	1 2 3 4 5	Not at all self-critical

How would you rate the following in terms of your current life?

Much family interaction	1 2 3 4 5	Minimal family interaction
Doing well in school	1 2 3 4 5	Doing poorly in school
Self often angry	1 2 3 4 5	Self rarely angry
Religion stressed	1 2 3 4 5	Religion ignored
Solitary	1 2 3 4 5	Many friends
Very happy	1 2 3 4 5	Very unhappy
Very self-critical	1 2 3 4 5	Not at all self-critical
Date often	1 2 3 4 5	Date rarely

Does your thinking ever seem like an internal voice speaking to you?

Yes _____ No _____

If yes:

How many voices would you say you had? _____

Is there a specific gender (male or female) to your voice*? If so what is it? _____

How would you characterize your voice? _____

What kinds of things are said, and in what tone of voice? _____

Has the nature of your voice or your interaction with your voice changed over the years? If yes, in what way? _____

Is there any time when your voice is more likely to manifest itself? If yes, when? _____

If no, is it because it is generally always apparent or because it is rarely apparent? _____

Has the nature of your thinking process changed over the years? If yes, in what way? _____

OPTIONAL: if you are willing to be included in a follow-up study

Name: _____ Phone: _____

Address: _____

THANK YOU VERY MUCH

* The singular of voice will be used throughout to save time, grammar and our typist.

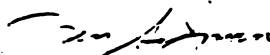
Appendix C

The Study 3 Instrument

A friend and I have been studying and arguing about certain mental processes. We are now ready to quit studying our close friends and ask how things appear to other people. We have put together this survey which describes what we are looking at. Our perceptions and descriptions differ slightly, and there are, therefore, three separate descriptions attached. Please read the descriptions, bearing in mind that they are all attempting to describe the same phenomenon. All three of the write-ups ask you whether you can identify with the described phenomenon. We would like you to respond to the descriptions in two ways. After you read each description classify yourself on the basis of your reading of that description only. Then after reading all three descriptions classify yourself again on the basis of your overall understanding. Following this is a questionnaire which we would like you to complete to give us some additional information about characteristics which might be related to the phenomenon.

Your participation in this study is voluntary, and you are free to discontinue your participation at any time without recrimination. All results will be completely confidential and your anonymity will be preserved.

THANK YOU



Ken Salzman

If you have any questions or comments regarding this study, you may contact me directly. My phone number is 485-5151 (after 5:30).

A DISCOVERY ABOUT CONSCIENCE

Friends:

I would like to share a discovery with you that I made about two years ago. One afternoon I was sitting and talking to Martha K , and I jokingly made a reference to some naughty thing that she might do. Martha replied, "Oh, I couldn't do that, my conscience would torture me for days." At that reference to "torture" my curiosity was piqued and I asked her, "What do you mean by torture? What exactly does go on in your head when your conscience tortures you?" And then she told me the most astounding things that I have ever heard (though about half of you will not be surprised): She said, "He would just call me awful names for hours on end." And that floored me because what I understood her to say was that she heard a little voice in her head that talked to her. And, after a long conversation, this turned out to be exactly true; her conscience was a distinct male voice that would spew out a stream of insults such as "filthy, worthless, dirty, ungrateful, etc."

Then, after awhile, I made a confession to Martha that stunned her as much as her's had surprised me. I told her that I had never heard any kind of voice in my head, not mine, not anybody's (though about half of you will not be surprised to hear that). To me the word "conscience" has never been any more than a metaphor for "thinking about the ethical consequences of an act." And by "thinking" I mean a silent process of internal thought generation. Only if I am playing a role or practicing a lecture do I engage in the subvocal speech that sounds to me like my own voice speaking (which, of course, it is). Martha asked me, "Do you mean that your head is just blank with nothing going on?" And I replied that was often true, though silent thought is still thought.

In the two years since then I have been slowly checking through everyone that I know well enough to ask such a personal question. First, I told my wife about Martha. And Ronda said, "Of course, everybody has a conscience." And I said, "But you mean a little voice in your head that is always talking to you?" She said, "He doesn't always talk, only when he wants to tell me what to do or what to say or what not to do or what to be afraid of or...." After she really started listening, for the next several months, she told me that he only shuts up if she is reading or doing a lot of heavy thinking (i.e., -math problems or related introspection, etc.). Otherwise, her head is rarely blank, one of them is almost always talking.

All in all, about half my friends have "little voices" that talk to them in their heads, and half of my friends do not. Some of those who have "little voices" have voices of the opposite sex, some have voices of the same sex, and some say that they can't really tell. Among my friends, women are more likely to have a little voice, and those women who do have a little voice say that it is frequently vocal. My male friends are more likely to say that their little voice only comes out in times of stress or worry, when they get messages such as "You can't do that, that's terrible," or "If you weren't so stupid, you would have had that thesis done months ago." Everyone who I've met who has a little voice says that it goes as far back in time as they can remember (including my son, who at 5 could not remember not having a little voice).

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Nor is the development a simple matter of family. My son has a little voice but my daughter does not. And, by the way, some people have more than one little voice. They have a little "devil" as well as a "conscience," i.e., some people hear a little voice that eggs them on to try new and "scary" or "bad" things that might be fun or might bring pleasure. In any case, almost everyone who had a little voice regards it as important to them (whether for good or for ill) and as one of the central feature of their mental life.

Are people without little voices more rational? Among the small and highly select set of people that are my immediate friends the answer is "yes." Those of us without little voices are much less susceptible to extreme mood shifts, and are much less likely to be blatantly inconsistent with our values from one time to another. After all, there is only one voice to speak to our affairs. In particular, from the sample that I've known, those of us who have no little voice are much less likely to get angry, very much less likely. But, on the other hand, during the last 2 years I have gotten angry at people whom I've never met (such as Richard Nixon and the people who want to censor violence from TV and....), I've worried over future events that are outside my power to control ("They never publish anything of mine"). I have furiously overworked, and then been highly depressed because I overwork, etc. So, I too am subject to irrational emotional states, to acting for the moment against my own long-term interests, to making thoughtless remarks, and all the other foibles of other members of the human race. It's just that I don't have a little voice to tell me "You shouldn't feel like that, that's bad," or "You should call your parents more often, you ungrateful child," or "How dare they do that to you? Who do they think they are?" You don't have to take that crap.... Instead, I simply go through life alone.

AN ANNOUNCEMENT

On the basis of my experience, I do know that I have two momentous announcements to make. First, to those who have no little voice. Lots of people "hear" a little voice which tells them what they should do, what they should not do, and whether their past acts and feelings are good or bad. Furthermore, this is no hallucination. These people know perfectly well that the little voice is inside their head and that no one else can hear it. Moreover, they are perfectly normal people. You can easily live 13 years with one and never guess what's going on inside their head. They never stop to tell you about the little voice because "everyone has one" and, when they do refer to it, they call it "I" or "me," etc.

To those of you who have a little voice (or more): lots of us don't. If you ask a person what he's thinking and he says "nothing" it may be true. If a person tells you, "I never feel guilty about the past," or "I rarely get angry," or "I get annoyed, but I never get mad" then there is a very good chance that he is telling the simple truth. There are a lot of us who have no true conscience in the old-fashioned sense of the word. Yet we are not uncontrollable beasts or monsters. I may be pretty weird, but I have a friend without a little voice who is impeccably conservative in dress and life style, and who is described by everyone as "warm, soft-hearted, and friendly."

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THE NEED FOR RESEARCH

There is only one statement above which is beyond doubt. There are two kinds of people; i.e., those who have a little voice and those who do not. Every other statement above is based on the unsystematic study of fewer than 20 people. And those people are all either my close friends or friends of my close friends and do not even begin to approach a random sample of Americans, much less humanity at large.

Thus, virtually every question that there is to ask about the little voice or its absence is still completely unanswered. If some of the crude hypotheses that I stated above seem more than tentative, then I apologize for my writing style. I am enthusiastically interested in the answers and like most people, I tend to overrate the generality of my experience.

WE WANT YOU

And, so we come to you, dear friend. We would like to know where you stand on this question and we would like to know anything that you might think might be relevant about yourself in regard to this issue. So, if you will and can, we would dearly love to have you fill out our questionnaire.

Questions:

1. From what you have read above, would you say that some of your thoughts take the form of an internal "voice"?

☐

I hear an internal "voice"

☐

I have had no such experience

2. How confident do you feel about this judgement?

☐
very
sure

☐
sure

☐
hesitant

☐
doubtful

☐
just
guessing

A DISCOVERY ABOUT CONSCIOUS THOUGHT

It has been generally believed that the experience of conscious thought is essentially the same for everyone. Recent evidence, however, seems to indicate that there is at least one aspect of conscious thought which is not the same for all people and separates them into two groups: the two ways people experience conscious thought appear to be quite distinct. What follows are descriptions of the two modes of thought, but please keep in mind that these descriptions are based on a fairly small group of people and may be inaccurate to some degree. Although statements are phrased as fact, remember that they are really tentative conclusions and observations drawn from a small sampling of the population. Also be aware that one description is likely to seem familiar, while the other may appear foreign, alien, or even provoke incredulity.

The people of one group experience conscious thought as a nonverbalized process by which concepts are juggled, merged, redefined and reordered, out of which are produced conclusions and new views. Thinking is a real process but is not readily subject to description, as it is a flow of concepts and relations which, though usually governed by rules of logic and reason, is not generally perceived as a step-by-step operation. It is difficult for a member of this group to examine the thinking at a given moment because the train of thought becomes interrupted by such introspection and cannot be easily put into words. Values are frequently held as subjective constructs, established by decision, rather than by any sense of an objective absolute. "Conscience" refers to an abstract set of ethical and moral beliefs, and guilt is perceived as a general feeling of distress. The members of this group often experience periods where there is no particular line of thought, especially conscious verbal thought, going through their minds. In response to the question, "What are you thinking about?" they may, in all honesty and candor, answer, "Nothing," although some may say instead, "Oh, hundreds of things." Both are true in that there is no single topic, theme, or subject occupying their conscious minds at the time, yet they are aware of their surroundings and current events. There is an important difference for this group between thinking and verbalization of thought. Since the single strongest characteristic of this process is its nonverbal nature, it is called implicit conscious thought.

The members of the other group experience conscious thought as a clearly verbal process, i.e., one which is carried out in a word-by-word fashion. Several distinct lines of thought may occur at the same time producing a multiplicity of perspectives, positions and attitudes regarding any subject under consideration. Thinking is a real process and can be described readily, but difficulty often arises over the fact that there are actually several thoughts running on parallel tracks simultaneously, sometimes taking the form of an internal dialogue. Each track is a logical process, but the conclusions drawn on one track do not necessarily prevent contradictory conclusions being drawn at the same time on other tracks. While introspection of the thinking process may disrupt one or more lines of thought, it is not generally disruptive to the process itself. Since the thinking is done on a verbal level, a train of thought can quite easily be put into words by members of this group. Values are frequently held as having an absolute nature, although competing values can both be held at once. Conscience is often experienced as one of the "voices" in their dialogue speaking to them or advising them from within their own minds. Feeling guilty is typically perceived as a period of internal chastisement from such a voice or parallel thought track. It is not unusual for a thought track to be uncomfortable to the individual and to spontaneously

☐ very ☐ sure ☐ hesitant ☐ doubtful ☐ just
guessing

A DISCOVERY ABOUT CONSCIOUSNESS

I would like to share a discovery that was made about two years ago. Two people were talking and the first jokingly made a reference to some naughty thing the second might do. "Oh, I couldn't do that," the second replied, "my conscience would torture me for days. It would just call me names for hours on end." The first person was curious about this and initiated a long conversation in which both made a startling discovery. The first person learned that the second did have an internal voice and could discuss matters with this voice. The second was astounded to learn that the first person had no such voice and experienced thinking as a conscious, nonverbal, "silent" process of internal thought generation. The closest the first person ever came to having a voice was in the act of mentally playing a role or practicing a speech, but this subvocalization was very different in character from the second's internal voice.

Over the next two years, both people discretely questioned their closest friends to determine whether others did or did not have internal voices that "talked to them." The number of people sampled was very small, less than 20 people, but there were some interesting correlates. About half of the people questioned reported having an internal voice and half reported none. People with an internal voice, "voicers," indicated that the voice is nearly always active, except when they are engaged in reading or other similarly engrossing thought. Something is always "going on" in their minds, for they are either intently thinking or they are listening to or interacting with their voice. On the other hand, the people without an internal voice, "non-voicers," often experience periods where their minds are just blank, with nothing going on at a conscious level. When the internal voice exists, it can be of any sex; there can be more than one internal voice, or the internal voice may take on different attitudes; the internal voice can be a "conscience" (judging), "friend" (supportive), or a "devil" (goading); the female voicers tended to report more constant activity of their internal voices while the male voicers reported distinct activity only in times of worry or stress; voicers could not recall ever not having an internal voice; voicers regard the internal voice as important to them and as one of the central features of their mental life. Non-voicers give the appearance of being somewhat more rationally minded than voicers, though they are not free from irrationality; voicers give the appearance of being more intuitively minded than non-voicers, though not exclusively so.

I wonder whether while reading this you have come to feel yourself associated to some extent with either of these groups. Please bear in mind that all of the above-mentioned "facts" are really no more than generalizations made from a very small sample. For any really meaningful statements to be made, it is essential that a larger sample be measured. This is why I am coming to you now with a statement and a request.

STATEMENT: There appears to be an aspect of human mental life which is not the same for all people, but separates them into two groups. The members of one group have lived with and had as an integral part of their existence an internal voice. They can, for instance, very naturally view conscience as a real thing, speaking to them or advising them from within their own minds and view feeling guilty as a period of chastisement and berating by the voice. The members of the other group have lived without any such partner or auxiliary cognitive process. Conscience to them would be simply an abstract set of

ethical and moral beliefs, and feeling guilty would be a period of general distress. Neither group is "abnormal;" voicers are not hallucinating and non-voicers are not deficient. Neither group is "better" or "worse" than the other, they are simply different.

REQUEST: It is understood that examining one's mental life is at the same time exciting and sensitive. With this in mind, I ask you to help me by filling out the questionnaire as openly and honestly as possible.

Questions:

1. How that you have read this description, how would you classify yourself?

☐
Voicer

☐
Nonvoicer

2. How confident do you feel about this judgement?

☐ very
sure

☐ sure

☐ hesitant

☐ doubtful

☐ just
guessing

Questions About Overall Assessment

You have now read three descriptions of the same phenomenon with three sets of labels.

1. How would you characterize your own mode of thought?

☐
Explicit conscious thought
Internal voice
Voicer

☐
Implicit conscious thought
No internal voice
Non-voicer

2. How confident do you feel about this judgement?

☐ very
sure

☐ sure

☐ hesitant

☐ doubtful

☐ just
guessing

3. If you were unsure of your identification in any of the descriptions, was this because:

☐ I felt I was much like both types described.

☐ I felt nothing like one of the types, but the other didn't describe me very well either.

☐ I felt nothing like either type.

☐ Other (please explain) _____

4. Which description was most helpful in figuring out what we are talking about?

- A) A Discovery about Conscience
- B) A Discovery about Consciousness
- C) A Discovery about Conscious Thought
- D) Combination of the above (please specify):

5. We would like to see any criticism that we might use in writing a new description of the phenomenon.

(a) Do you think any of the descriptions were particularly vague?

(b) Do you think any of the descriptions was either derogatory or complementary in tone?

(c) *** Most important *** Is there anything important that was left out of all three descriptions?

(d) Any other comments on the descriptions?

Please complete the following: ☐ Male ☐ Female

My age at my last birthday was _____

Please answer TRUE or FALSE to the following items:

- T F 1. I usually avoid doing something that might provoke criticism.
- T F 2. There are times when I get so annoyed with myself over something that I think about it even while I do other things.
- T F 3. I feel distress if I have to choose between things that are about equal in value or worth.
- T F 4. I wear what I want without much concern for how others might look at me.
- T F 5. I find it hard to do anything that my parents would disapprove of.
- T F 6. I feel comfortable being different from those around me.
- T F 7. You can't develop a general view without getting the facts first.
- T F 8. I like to say things that will shock other people.
- T F 9. I often notice that I am talking to myself out loud.
- T F 10. I am frequently struck by how certain others are of themselves.
- T F 11. I usually try to do what is expected of me.
- T F 12. If I had two new sweaters, I would find it hard to choose which one to wear.
- T F 13. I rarely lose count of something I'm doing.
- T F 14. I like to argue if the other person doesn't get mad.
- T F 15. It really bothers me if I have to visit a professor in their office.
- T F 16. When I relax, I can just let my mind drift.
- T F 17. I don't really care all that much whether people like me or dislike me.
- T F 18. I feel that I can dominate a social situation.
- T F 19. Sometimes I'm enjoying an argument so much that I don't realize the other person is taking it seriously.
- T F 20. I hate to answer TRUE or FALSE questions because things just aren't that simple.
- T F 21. I had an imaginary childhood playmate.

- T F 22. I'd rather be thought of as intelligent than sociable.
- T F 23. I like to plan my day's activities in detail.
- T F 24. I'm more a listener than a talker.
- T F 25. If I were in a cabin in the woods, I wouldn't mind getting outstayed in front of a window without closing the shades.
- T F 26. It bothers me to break rules, even when I know I won't get caught.
- T F 27. Arbitrary decisions are usually easy to make.
- T F 28. I try to do what is fitting and appropriate.
- T F 29. When I am alone, I have to be doing, reading or watching something or else I'm liable to fall asleep.
- T F 30. You can't develop a general view without getting the facts first.
- T F 31. I usually maintain my original position even when my superiors disagree.
- T F 32. I feel that I can control a social situation even though it may not be obvious to others.
- T F 33. I like doing things in which I have to act quickly.
- T F 34. I sometimes argue for the opposite of what I believe in, just for the fun of the argument.
- T F 35. I'd rather lose a few points on a test than stand up to the teacher.
- T F 36. Other people are generally no more sure of themselves than I am.
- T F 37. It is generally best to do things in the approved way.
- T F 38. I am slow in making up my mind.
- T F 39. When I'm out in public, I wonder if I'm the only one who is nervous.
- T F 40. I only talk to myself out loud when I wish to think rigorously.
- T F 41. Before I do something, I try to consider how my friends will react to it.
- T F 42. When getting dressed, I almost always put the same shoe on first.
- T F 43. When I go to bed, I can quickly "shut off" my mind and fall asleep.
- T F 44. I used to "invent" companions to play with when I was a child.
- T F 45. I feel comfortable acting unconventionally if an important issue is involved.
- T F 46. I hate having to make hurried decisions.

- T F 47. I'll fight for a few points on a test, even if they won't change my grade.
- T F 48. When working out a problem, I try first to get clear on the details and facts involved.
- T F 49. Making up imaginary childhood companions for when I was alone just never occurred to me.
- T F 50. I easily change my mind after I hear what others have to say.
- T F 51. It is pretty hard to adjust to change.
- T F 52. Talking to myself out loud restricts my thinking to a single subject.
- T F 53. Before I raise my hand in class, I always worry about what other classmates might think of my question.
- T F 54. I'm pretty good at "bluffing".
- T F 55. I'd rather pay a parking ticket by mail than fight it in court.
- T F 56. I don't make as many compromises as most people.
- T F 57. When I go to bed, I find I spend a lot of time reviewing the past day and/or planning the next before I fall asleep.
- T F 58. I feel comfortable acting unconventionally.
- T F 59. It is hard for me to decide to leave where I am at any given time.
- T F 60. I feel I need to do well on this questionnaire, even though no one will know that it is mine.
- T F 61. I'm likely to discontinue doing something that others think not worthwhile.
- T F 62. If I control a social situation, it is important to me that it not be obvious to others.
- T F 63. I feel embarrassed if I go skating, dancing or bowling in public.
- T F 64. I sometimes will start driving before I've decided where I'm going.
- T F 65. Most people are better able to bluff their way through a discussion than I am.
- T F 66. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.
- T F 67. When working out a problem, I try first to get a general overview.
- T F 68. Talking to myself out loud doesn't affect my normal flow of thought.
- T F 69. When I take a stand I tend to hold to it, particularly if others disagree.

- T F 70. I don't mind speeding if there are no police around.
- T F 71. I don't like taking a walk unless I'm walking to somewhere specific.
- T F 72. When I'm in public, I am often afraid that people can tell how nervous I am.
- T F 73. When I am alone, there is nearly always some kind of talking going on in my head.

Thank you for completing this questionnaire.

Appendix D

The Apriori Factors and Their Items

Appendix D

CLUSTER	VAR #	ITEM
SOCIAL DOMINANCE		
	46	I'm more a listener than a talker.
	84	If I control a social situation, it is important that it not be obvious to others.
	40	I feel that I can dominate a social situation.
	54	I feel that I can control a social situation even though it may not be obvious to others.
	76	I'm pretty good at "bluffing".
CONFORMITY		
	63	Before I do something, I try to consider how my friends will react to it.
	59	It is generally best to do things in the approved way.
	23	I usually avoid doing something that might provoke criticism.
	33	I usually try to do what is expected of me.
	50	I try to do what is fitting and appropriate.
	72	I easily change my mind after I hear what others have to say.
	83	I'm likely to discontinue doing something that others think not worthwhile.
SPOTLIGHT EMBARRASSMENT		
	26	I wear what I want without much concern for how others might look at me.
	75	Before I raise my hand in class, I always worry about what other classmates might think of my question.
	47	If I were in a cabin in the woods, I wouldn't mind getting undressed in front of a window without closing the shades.
	80	I feel comfortable acting unconventionally.
	94	When I'm in public, I am often afraid that people can tell how nervous I am.

- 61 When I'm out in public, I wonder if I'm the only one who is nervous.
- 85 I feel embarassed if I go skating, dancing or bowling in public.

FOCUS

- 89 When working out a problem, I try first to get a general overview.
- 70 When working out a problem, I try first to get clear on the details and facts involved.
- 29 You can't develop a general view without getting the facts first.
- 52 You can't develop a general view without getting the facts first.

PROVOCATIVE/ARGUMENTATIVE

- 69 I'll fight for a few points on a test, even if they won't change my grade.
- 91 When I take a stand I tend to hold to it, particularly if others disagree.
- 56 I sometimes argue for the opposite of what I believe in, just for the fun of the argument.
- 30 I like to say things that will shock other people.
- 36 I like to argue if the other person doesn't get mad.
- 41 Sometimes I'm enjoying an argument so much that I don't realize the other person is taking it seriously.

INDEPENDENCE

- 28 I feel comfortable being different from those around me.
- 78 I don't make as many compromises as most people.
- 39 I don't really care all that much whether people like me or dislike me.
- 88 Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.
- 53 I usually maintain my original position even when my superiors disagree.
- 44 I'd rather be thought of as intellegent than sociable.
- 67 I feel comfortable acting unconventionally if an important issue is involved.

ORDERLY

- 45 I like to plan my day's activities in detail.
- 64 When getting dressed, I almost always put on the same shoe first.
- 35 I rarely lose count of something I'm doing.

IMAGINARY PLAYMATE

- 66 I used to "invent" companions to play with when I was a child.
- 71 Making up imaginary childhood companions for when I was alone just never occurred to me.
- 43 I had an imaginary childhood playmate.

AUTHORITY SHY

- 37 It really bothers me if I have to visit a professor in their office.
- 57 I'd rather lose a few points on a test than stand up to the teacher.
- 77 I'd rather pay a parking ticket by mail than fight it in court.

OTHERS' CERTAINTY

- 58 Other people are generally no more sure of themselves than I am.
- 87 Most people are better able to bluff their way through a discussion than I am.
- 32 I am frequently struck by how certain others are of themselves.

TALKSELF

- 74 Talking to myself out loud restricts my thinking to a single subject.
- 31 I often notice that I am talking to myself out loud.
- 90 Talking to myself out loud doesn't affect my normal flow of thought.
- 62 I only talk to myself out loud when I wish to think rigorously.

DECISIVE

- 49 Arbitrary decisions are usually easy to make.
- 86 I sometimes will start driving before I've decided where I'm going.
- 93 I don't like taking a walk unless I'm walking to somewhere specific.

- 81 It is hard for me to decide to leave
where I am at any given time.
- 42 I hate to answer TRUE or FALSE
questions because things just aren't
that simple.
- 34 If I had two new sweaters, I would
find it hard to choose which one to
wear.
- 25 I feel distress if I have to choose
between things that are about equal
in value or worth.

QUICK

- 55 I like doing things in which I have
to act quickly.
- 60 I am slow in making up my mind.
- 73 It is pretty hard to adjust to
change.
- 68 I hate having to make hurried
decisions.

INVOLUNTARY MIND

- 79 When I go to bed, I find I spend a
lot of time reviewing the past day
and/or planning the next before I
fall asleep.
- 95 When I am alone, there is always some
kind of talking going on in my head.
- 51 When I am alone, I have to be doing,
reading or watching something or
else I'm liable to fall asleep.
- 38 When I relax, I can just let my mind
drift.
- 65 When I go to bed, I can quickly "shut
off" my mind and fall asleep.
- 24 There are times when I get so annoyed
with myself over something that I
think about it while I do other
things.

DORIGHT

- 82 I feel I need to do well on this
questionnaire, even though no one
will know that it is mine.
- 92 I don't mind speeding if there are no
police around.
- 27 I find it hard to do anything that my
parents would disapprove of.
- 48 It bothers me to break rules, even
when I know I won't get caught.

Appendix E

The Final Factors of Study 3 and Their Items

Appendix E

An * indicates that the item was reverse scored.

501 NOT QUICK

- 60 I am slow in making up my mind.
- 68 I hate having to make hurried decisions.
- 55 * I like doing things in which I have to act quickly.
- 34 If I had two new sweaters, I would find it hard to choose which one to wear.
- 25 I feel distress if I have to choose between things that are about equal in value or worth.
- 49 * Arbitrary decisions are usually easy to make.
- 81 It is hard for me to decide to leave where I am at any given time.

502 VOICER

- 2 Self ID (Jack's)
- 4 Self ID (Philosophical)
- 6 Self ID (Rewritten)
- 8 Self ID (Global)

503 RULEBREAKER

- 48 * It bothers me to break rules, even when I know I won't get caught.
- 88 Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.
- 80 I feel comfortable acting unconventionally.
- 47 If I were in a cabin in the woods, I wouldn't mind getting undressed in front of a window without closing the shades.
- 92 I don't mind speeding if there are no police around.
- 67 I feel comfortable acting unconventionally if an important issue is involved.
- 30 I like to say things that will shock other people.

504 SOCIAL DOMINANCE

- 40 I feel that I can dominate a social situation.
- 54 I feel that I can control a social situation even though it may not be obvious to others.

505 NEED FOR APPROVAL

- 75 Before I raise my hand in class, I always worry about what other classmates might think of my question.
- 53 * I usually maintain my original position even when my superiors disagree.
- 23 I usually avoid doing something that might provoke criticism.

- 72 I easily change my mind after I hear what others have to say.
- 83 I'm likely to discontinue doing something that others think not worthwhile.
- 28 * I feel comfortable being different from those around me.
- 27 I find it hard to do anything that my parents would disapprove of.
- 91 * When I take a stand I tend to hold to it, particularly if others disagree.

506 AUTHORITY SHY

- 69 * I'll fight for a few points on a test, even if they won't change my grade.
- 57 I'd rather lose a few points on a test than stand up to the teacher.
- 37 It really bothers me if I have to visit a professor in their office.
- 77 I'd rather pay a parking ticket by mail than fight it in court.

507 DO EXPECTED

- 33 I usually try to do what is expected of me.
- 50 I try to do what is fitting and appropriate.
- 59 It is generally best to do things in the approved way.

508 ARGUER

- 41 Sometimes I'm enjoying an argument so much that I don't realize the other person is taking it seriously.
- 36 I like to argue if the other person doesn't get mad.
- 56 I sometimes argue for the opposite of what I believe in, just for the fun of the argument.

509 IMAGINARY PLAYMATE

- 66 I used to "invent" companions to play with when I was a child.
- 43 I had an imaginary childhood playmate.
- 71 * Making up imaginary childhood companions for when I was alone just never occurred to me.

510 POOR BLUFFER

- 76 * I'm pretty good at "bluffing".
- 87 Most people are better able to bluff their way through a discussion than I am.

511 HARD TO GET TO SLEEP

- 79 When I go to bed, I find I spend a lot of time reviewing the past day and/or planning the next before I fall asleep.

65 * When I go to bed, I can quickly "shut off" my mind and fall asleep.

512 SELF CONSCIOUS

63 Before I do something, I try to consider how my friends will react to it.

61 When I'm out in public, I wonder if I'm the only one who is nervous.

94 When I'm in public, I am often afraid that people can tell how nervous I am.

39 * I don't really care all that much whether people like me or dislike me.

26 * I wear what I want without much concern for how others might look at me.

513 TALKSELF AFFECTS THINKING

74 Talking to myself out loud restricts my thinking to a single subject.

90 * Talking to myself out loud doesn't affect my normal flow of thought.

514 ACTIVE HEAD

95 When I am alone, there is always some kind of talking going on in my head.

31 I often notice that I am talking to myself out loud.

24 There are times when I get so annoyed with myself over something that I think about it while I do other things.

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