

PSYCHOANALYTIC "EVIDENCE": A CRITIQUE BASED ON FREUD'S CASE OF' LITTLE HANS

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Beginning with Wohlgemuth's trenchant monograph, the factual and logical bases of psychoanalytic theory have been the subject of a considerable number of criticisms. These have generally been dismissed by psychoanalysts, at least partly on the ground that the critics are oblivious of the "wealth of detail" provided by the individual case. One way to examine the soundness of the analysts' position is to study fully-reported cases that they themselves regard as having contributed significantly to their theories. We have undertaken to do this, and have chosen as our subject matter one of Freud's most famous cases, given in such detail that the events of a few months occupy 140 pages of the *Collected Papers*.

In 1909, Freud published "The Analysis of a Phobia in a Five-year old Boy" (2). This case is commonly referred to as "The case of Little Hans." Ernest Jones, in his biography of Freud, points out that it was "the first published account of a child analysis" (8, p.289), and states that "the brilliant success of child analysis" since then was "indeed inaugurated by the study of this very case" (8, p. 292). The case also has special significance in the development of psychoanalytic theory because Freud believed himself to have found in it "a more direct and less roundabout proof" of some fundamental psychoanalytic theorems (p. 150). In particular, he thought that it provided a direct demonstration of the essential role of sexual urges in the development of phobias. He felt his position to have been greatly strengthened by this case and two generations of analysts have referred to the evidence of Little Hans as a basic substantiation of psychoanalytic theories. As an example, Glover may be quoted.

"In its time the analysis of Little Hans was a

remarkable achievement and the story of the analysis constitutes one of the most valued records in psychoanalytical archives. Our concepts of phobia formation, of the positive Oedipus complex, of ambivalence, castration anxiety and repression, to mention but a few, were greatly reinforced and amplified as the result of this analysis."

In this paper we shall re-examine this case history and assess the evidence presented. We shall show that although there are manifestations of sexual behavior on the part of Hans, there is no scientifically acceptable evidence showing any connection between this behavior and the child's phobia for horses; that the assertion of such connection is pure assumption; that the elaborate discussions that follow from it are pure speculation; and that the case affords no factual support for any of the concepts listed by Glover above. Our examination of this case exposes in considerable detail patterns of thinking and attitudes to evidence that are nearly universal among psychoanalysts. It suggests the need for more careful scrutiny of the bases of psychoanalytic "discoveries" than has been customary; and we hope it will prompt psychologists to make similar critical examinations of basic psychoanalytic writings.

The case material on which Freud's analysis is based was collected by Little Hans's father, who kept Freud informed of developments by regular written reports. The father also had several consultations with Freud concerning Little Hans's phobia. During the analysis, Freud himself saw the little boy only once.

The following are the most relevant facts noted of Hans's earlier life. At the age of three, he

showed "a quite peculiarly lively interest in that portion of his body which he used to describe as his widdler." When he was three and a half, his mother found him with his hand to his penis. She threatened him in these words, "If you do that, I shall send for Dr. A. to cut off your widdler. And then what will you widdle with?" Hans replied, "With my bottom." Numerous further remarks concerning widdlers in animals and humans were made by Hans between the ages of three and four, including questions directed at his mother and father asking them if they also had widdlers. Freud attaches importance to the following exchange between Hans and his mother. Hans was "looking on intently while his mother undressed."

Mother: "What are you staring like that for?"

Hans: "I was only looking to see if you'd got a widdler, too."

Mother: "Of course. Didn't you know that?"

Hans: "No, I thought you were so big you'd have a widdler like a horse."

When Hans was three and a half his sister was born. The baby was delivered at home and Hans heard his mother "coughing," observed the appearance of the doctor, and was called into the bedroom after the birth. Hans was initially "very jealous of The new arrival" but within six months his jealousy faded and was replaced by "brotherly affection." When Hans was four he discovered a seven-year old girl in the neighborhood and spent many hours awaiting her return from school. The father commented that "the violence, with which this 'long range love' came over him was to be explained by his having no play-fellows of either sex." At this period also, "he constantly putting his arms round" visiting boy cousin, aged five, and was overheard saying, "I *am* so fond of you" when giving his cousin one of these tender embraces." Freud speaks of this as the "first trace of homosexuality."

At the age of four and a half, Hans went with his parents to Gmunden for the summer holidays. On holiday Hans had numerous playmates including Mariedl, a fourteen year old girl. One evening Hans said "I want Mariedl to sleep with me." Freud says that Hans's wish was an expression of his desire to have Mariedl as part of his family.

Hans's parents occasionally took him into their bed and Freud claims that, "there can be no doubt that lying beside them had aroused erotic feelings in him³ so that his wish to sleep with Mariedl had an erotic sense as well."

Another incident during the summer holidays is given considerable importance by Freud, who refers to it as Hans's attempt to seduce his mother. It must be quoted here in full.

"Hans, four and a quarter.⁴ This morning Hans was given his usual daily bath by his mother and afterwards dried and powdered. As his mother was powdering round his penis and taking care not to touch it,

Hans said "Why don't you put your finger there?"

Mother: "Because that'd be piggish."

Hans: "What's that? Piggish? Why?"

Mother: "Because it's not proper."

Hans (laughing): "But it's great fun."

Another occurrence prior to the onset of his phobia was that when Hans, aged four and a half, laughed while watching his sister being bathed and was asked why he was laughing, he replied, "I'm laughing at Hanna's widdler." "Why?" "Because her widdler's so lovely." The father's comment is, "Of course his answer was a disingenuous one. In reality her widdler seemed to him funny. Moreover, this is the first time he has recognized in this way the distinction between male and female genitals instead of denying it."

In early January, 1908, the father wrote to Freud that Hans had developed "a nervous disorder." The symptoms he reported were: fear of going into the streets; depression in the evening, and a fear that a horse would bite him in the street. Hans' father suggested that "the ground was prepared by sexual over-excitation due to his mother's tenderness" and that the fear of the horse "seems somehow to be connected with his having been frightened by a large penis." The first signs appeared on January 7th, when Hans was being taken to the park by his nursemaid as usual. He started crying and said he wanted to "coax" (caress) with his mother. At home "he was asked why he had refused to go any further and had cried, but he would not say." The following day, after hesitation and crying, he went out with

his mother. Returning home Hans said ("after much internal struggling"), "*I was afraid a horse would bite me*" (original italics). As on the previous day, Hans showed fear in the evening and asked to be "coaxed." He is also reported as saying, "I know I shall have to go for a walk again tomorrow," and "The horse will come into the room." On the 'same day he was asked by his mother if he put his hand to his widdler. He replied in the affirmative. The following day his mother warned him to refrain from doing this.

At this point in the narrative, Freud provided an interpretation of Hans' behavior and consequently arranged with the boy's 'father "that he should tell the boy that all this nonsense about horses was a piece of nonsense and nothing more. The truth was, father was to say, "that he was very fond of his mother and wanted to be taken into her bed. The reason he was afraid of horses was that he had taken so much interest their widdlers." Freud also suggested giving Hans some sexual enlightenment and telling him that females "had no widdler at all". After Hans had been enlightened there followed a fairly quiet period." After an attack of influenza which kept him in bed for two weeks, the phobia got worse. He then had his tonsils out and was indoors for a further week. The phobia became "very much worse."

During March, 1908, after his physical illnesses had been cured, Hans apparently had many talks with his father about the phobia. On March 1, his father again told Hans that horses do not bite. Hans replied that white horses bite and related that while at Gmunden he had heard and seen Lizzi (a playmate) being warned by her father to avoid a white horse lest it bite. The father said to Lizzi, "*Don't put your finger to the white horse*" (original italics). Hans' father's reply to this account given by his son was, "I say, it strikes me it isn't a horse you mean, but a widdler, that one mustn't put one's hand to." Hans answered, "But a widdler doesn't bite." The father: "Perhaps it does, though." Hans then "went on eagerly to try to prove to me that it was a white horse." The following day, in answer to a remark of his father's, Hans said that his phobia was "so bad because I still put my hand to my widdler every night." Freud remarks here that, "Doctor and patient, father and son, were therefore at one in ascribing the chief share in the pathogenesis of

Hans' present condition to his habit of self-stimulation." He implies that this unanimity is significant, quite disregarding the father's indoctrination of Hans the previous day.⁶

On March 13, the father told Hans that his fear would disappear if he stopped putting his hand to his widdler. Hans replied, "But I don't put my hand to my widdler any more." Father: "But you still want to." Hans agreed, "Yes, I do." His father suggested that he should Sleep in a sack to prevent him from wanting to touch his widdler. Hans accepted this view and on the following day was much less afraid of horses.

Two days later the father again told Hans that girls and women have no widdlers. "Mummy has none, Anna has none and so on." Hans asked how they managed to widdle and was told "They don't have widdlers like yours. Haven't you noticed already when Hanna was being given her bath." On March 17 Hans reported a fantasy in which he saw his mother naked. On the basis of this fantasy and the conversation related above, Freud concluded that Hans had not accepted the enlightenment given by his father. Freud says, "He regretted that it should be so, and stuck to his former view in fantasy. He may also perhaps have had his reasons for refusing to believe his father at first." Discussing this matter subsequently, Freud says that the "enlightenment" given a short time before to the effect that women really do not possess a widdler was bound to have a shattering effect upon his self-confidence and to have aroused his castration complex. For this reason he resisted the information, and for this reason it had no therapeutic effect.⁷

For reasons of space we shall recount the subsequent events in very brief form. On a visit to the Zoo Hans expressed fear of the giraffe, elephant and all large animals. Hans' father said to him, "Do you know why you are afraid of big animals? Big animals have big widdlers and you're really afraid of big widdlers." This was denied by the boy.

The next event of prominence was a dream (or fantasy) reported by Hans. "In the night there was a big giraffe in the room and a crumpled one; and the big one called out because I took the crumpled one away from it. Then it stopped calling out, and then I sat down on the top of the crumpled one."

After talking to the boy the father reported to Freud that this dream was "a matrimonial scene transposed into giraffe life. He was seized in the night with a longing for his mother, for her caresses, for her genital organ, and came into the room for that reason. The whole thing is a continuation of his fear of horses." The father infers that the dream is related to Hans' habit of occasionally getting into his parents' bed in the face of his father's disapproval. Freud's addition to "the father's penetrating observation" is that sitting down on the crumpled giraffe means taking possession of his mother. Confirmation of this dream interpretation is claimed by reference to an incident which occurred the next day. The father wrote that on leaving the house with Hans he said to his wife. "Goodbye, big giraffe." "Why giraffe?" asked Hans. "Mummy's the big giraffe," replied the father. "Oh, yes," said Hans, "and Hanna's⁸ the crumpled giraffe, isn't she?" The father's account continues, "In the train I explained the giraffe fantasy to him, upon which he said 'Yes, that's right,' And when I said to him that I was the big giraffe and that its long neck reminded him of a widdler, he said 'Mummy has a neck like a giraffe too. I saw when she was washing her white neck.'"

On March 30, the boy had a short consultation with Freud who reports that despite all the enlightenment given to Hans, the fear of horses continued undiminished. Hans explained that he was especially bothered "by what horses wear in front of their eyes and the black round their mouths." This latter detail Freud interpreted as meaning a moustache. "I asked him whether he meant a moustache," and then, "disclosed to him that he was afraid of his father precisely because he was so fond of his mother." Freud pointed out that this was a groundless fear. On April 2, the father was able to report "the first real improvement." The next day Hans, in answer to his father's inquiry, explained that he came into his father's bed when he was frightened. In the next few days further details of Hans's fear were elaborated. He told his father that he was most scared of horses with "a thing on their mouths," that he was scared lest the horses fall, and that he was most scared of horse-drawn buses.

Hans: "I'm most afraid too when a bus comes along."

Father: "Why? Because it's so big?"

Hans: "No. Because once a horse in a bus fell."

Father: "When?"

Hans then recounted such an incident. This was later confirmed by his mother.

Father: "What did you think when the horse fell down?"

Hans: "Now it will always be like this. All horses in buses will fall down."

Father "In all buses?"

Hans: "Yes. And in furniture vans too. Not often in furniture vans."

Father "You had your nonsense already at that time?"

Hans: "No (italics added). I only got it then. When the horse in the bus fell down, it gave me such a fright really: That was when I got the nonsense."

The father adds that, "all of this was confirmed by my wife, as well as the fact that the *anxiety broke out immediately after*(italics added).

Hans's father continued probing for a meaning of the black thing around the horses' mouths. Hans said it looked like a muzzle but his father had never seen such a horse "although Hans insists that such horses do exist."⁹ He continues "I suspect that some part of the horse's bridle really reminded him of a moustache and that after I alluded to this the fear disappeared." A day later when Hans' father had stripped to the waist,

Hans observed "Daddy you are lovely! You're so white."

Father: "Yes. Like a white horse."

Hans: "The only black thing's your moustache. Or perhaps it's a black muzzle."¹⁰

Further details about the horse that fell were also elicited from Hans. He said there were actually two horses pulling the bus and that they were both black and "very big and fat." Hans' father again asked about the boy's thoughts when the horse fell.

Father: "When the horse fell down, did you think of your daddy?"¹¹

Hans: "Perhaps. Yes. It's possible."

For several days after these talks about horses Hans' interests, as indicated by the father's reports "centered upon lumf (feces) and widdle, but we cannot tell why." Freud comments that at this point "the analysis began to be obscure and uncertain."

On April 11 Hans related this fantasy. "I was in the bath¹² and then the plumber came and unscrewed it. Then he took a big borer and stuck it into my stomach." Hans's father translated this fantasy as follows: "I was in bed with Mamma. Then Pappa came and drove me away. With his big penis he pushed me out of my place by Mamma."

The remainder of the case history material, until Hans's recovery from the phobia early in May, is concerned with the lumf (feces) theme and Hans's feelings towards his parents and sister. It can be stated immediately that as corroboration for Freud's theories all of this remaining material is unsatisfactory. For the most part it consists of the father expounding theories to a boy who occasionally agrees and occasionally disagrees. The following two examples illustrate the nature of most of this latter information.

Hans and his father were discussing the boy's slight fear of falling when in the big bath.

Father: "But Mamma bathes you in it. Are you afraid of Mamma dropping you in the water?"

Hans: "I am afraid of her letting go and my head going in."

Father: "But you know Mummy's fond of you and won't let you go."

Hans: "I only just thought it." Father. "Why?"

Hans: "I don't know at all."

Father: "Perhaps it was because you'd been naughty and thought she didn't love you anymore?"¹⁴

Hans: "Yes."

Father: "When you were watching Mummy giving Hanna her bath perhaps you wished she would let go of her so that Hanna should fall in?"¹⁴

On the following day the father asks, "Are you fond of Hanna?"

Hans: "Oh yes, very fond."

Father: "Would you rather that Hanna weren't alive or that she were?"

Hans: "I'd rather she weren't alive."

In response to close, direct questioning, Hans voiced several complaints about his sister. Then his father proceeded again:

Father: "If you'd rather she weren't alive, you can't be fond of her at all."

Hans:(assenting¹⁵) "Hm, well."

Father: "That's why you thought when Mummy was giving her her bath; if only she's let go, Hanna would fall in the water"

Hans:(completing sentence) ..". and die."

Father: "and then you'd be alone with Mummy. A good boy doesn't wish that sort of thing, though."

On April 24, the following conversation was recorded.

Father: "It seems to me that, all the same you do wish Mummy would have a baby."

Hans: "But I don't want it to happen."

Father: "But you wish for it?"

Hans: "Oh, yes, wish."¹⁶

Father: "Do you know why you wish for it? It's because you'd like to be Daddy."

Hans: "Yes. How does it work?"

Father. "You'd like to be Daddy and married to Mummy; you'd like to be as big as me and have a moustache; and you'd like Mummy to have a baby."

Hans: "And Daddy, when I'm married I'll have only one if I want to, when I'm married to Mummy, and if I don't want a baby, God won't want it either when I'm married."

Father: "Would you like to be married to Mummy?"

Hans: "Oh yes."

The Value of the Evidence

Before proceeding to Freud's interpretation of the case, let us examine the value of the evidence presented. First, there is the matter of selection of the material. The greatest attention is naturally paid to material related to psychoanalytic theory and there is a tendency to ignore other facts. The father and mother, we are told by Freud, "were both among my closest adherents." Hans himself was constantly encouraged, directly and indirectly, to relate material of relevance to the psychoanalytic doctrine.

Second, we must assess the value to be placed on the testimony of the father and of Hans. The father's account of Hans's behavior is in several instances suspect. For example, he twice presents his own interpretations of Hans's remarks as observed facts. This is the father's report of a conversation with Hans about the birth of his sister Hanna.

Father: "What did Hanna look like?"

Hans : "All white and lovely. So pretty."

On another occasion, despite several clear statements by Hans of his affection for his sister (and also the voicing of complaints about her screaming), the father said to Hans, "If you'd rather she weren't alive, you can't be fond of her at all." Hans (assenting): "Hmm . . . well." (See above).

The comment in parenthesis in each of these two extracts is presented as observed fact. A third example has also been quoted above. When Hans observes that Hanna's widdler is "so lovely" the father states that this is a ~ reply and that "in reality her widdler seemed to him funny." Distortions of this kind are common in the father's reports.

Hans's testimony is for many reasons unreliable. Apart from the numerous lies which he told in the last few weeks of his phobia, Hans gave many inconsistent and occasionally conflicting reports. Most important of all, much of what purports to be Hans's views and feelings is simply the father speaking. Freud himself admits this but attempts to gloss over it. He says, "It is true that during the analysis Hans had to be

told many things which he could not say himself, that he had to be presented with thoughts which he had so far shown no signs of possessing and that his attention had to be turned in the direction from which his father was expecting something to come.' This detracts from the evidential value of the analysis but the procedure is the same in every case. For a psychoanalysis is not an impartial scientific investigation but a therapeutic measure".¹⁷ To sum this matter up, Hans's testimony is subject not only to "mere suggestion" but contains much material that is not his testimony at all!

From the above discussion it is clear that the "facts of the case" need to be treated with considerable caution and in our own interpretation of Hans's behavior we will attempt to make use only of the testimony of direct observation.

Freud's Interpretation

Freud's interpretation of Hans's phobia is that the boy's oedipal conflicts formed the basis of the illness which "burst out" when he underwent "a time of privation and the intensified sexual excitement." Freud says, "These were tendencies in Hans which had already been suppressed and which, so far as we can tell, had never been able to find uninhibited expression: hostile and jealous feelings against his father, and sadistic impulses (premonitions, as it were, of copulation) towards his mother. These early suppressions may perhaps have gone to form the predisposition for his subsequent illness. These aggressive propensities of Hans's found no outlet, and as soon as there came a time of privation and of intensified sexual excitement, they tried to break their way out with reinforced strength. It was then that the battle which we call his 'phobia' burst out".

This is the familiar oedipal theory, according to which Hans wished to replace his father "whom he could not help hating as a rival" and then complete the act by "taking possession of his mother." Freud refers for confirmation to the following. "Another symptomatic act, happening as though by accident, involved a confession that he had wished his father dead; for, just at the moment that his father was talking of his death-wish Hans let a horse that he was playing with fall down-knocked it over, in fact". Freud claims that, "Hans was really a little Oedipus who wanted to have his father 'out of the way' to get rid of him,

so that he might be alone with his handsome mother and sleep with her". The predisposition to illness provided by the oedipal conflicts are supposed to have formed the basis for "the transformation of his libidinal longing into anxiety." During the summer prior to the onset of the phobia, Hans had experienced "moods of mingled longing and apprehension" and had also been taken into his mother's bed on occasions. Freud says, "We may assume that since then Hans had been in a state of intensified sexual excitement, the object of which was his mother. The intensity of this excitement was shown by his two attempts at seducing his mother (the second of which occurred just before the outbreak of his anxiety); and he found an incidental channel of discharge for it by masturbating. Whether the sudden exchange of this excitement into anxiety took place spontaneously, or as a result of his mother's rejection of his advances, or owing to the accidental revival of earlier impressions by the 'exciting cause' of his illness ... this we cannot decide. The fact remains that his sexual excitement suddenly changed into anxiety"¹⁸

Hans, we are told, "transposed from his father on to the horses." At his sole interview with Hans, Freud told him "that he was afraid of his father because he himself nourished jealous and hostile wishes against him." Freud says of this, "In telling him this, I had partly interpreted his fear of horses for him: the horse must be his father - whom he had good internal reasons for fearing". Freud claims that Hans' fear of the black things on the horses' mouths and the things in front of their eyes was based on moustaches and eye-glasses and had been "directly transposed from his father on to the horses."¹⁹ The horses "had been shown to represent his father."

Freud interprets the agoraphobic (fear of open spaces) element of Hans' phobia thus. "The content of his phobia was such as to impose a very great measure of restriction upon his freedom of movement, and that was its purpose. After all, Hans' phobia of horses was an obstacle to his going into the street, and could serve as a means of allowing him to stay at home with his beloved mother."²⁰ In this way, therefore, his affection for his mother triumphantly achieved its aim".

Freud interprets the disappearance of the

phobia as being due to the resolution by Hans of his oedipal conflicts by "promoting him (the father) to a marriage with Hans' grandmother - instead of killing him." This final interpretation is based on the following conversation between Hans and his father.

On April 30, Hans was playing with his imaginary children.

Father: "Hullo, are your children still alive? You know quite well a boy can't have any children."

Hans: "I know. I was their Mummy before, now I'm their Daddy" (original italics).

Father "And who's the children's Mummy?"

Hans: "Why, Mummy, and you're their Granddaddy (original italics).

Father "So then you'd like to be as big as me, and be married to Mummy, and then you'd like her to have children."

Hans: "Yes, that's what I'd like, and then my Lainz Grandmamma" (paternal side) "will be their Grannie."

Critique of Freud's Conclusions

It is our contention that Freud's view of this case is riot supported by the data, either in its particulars or as a whole. The major points that he regards as demonstrated are these: 1) Hans had a sexual desire for his mother, 2) he hated and feared his father and wished to kill him, 3) his sexual excitement and desire for his mother were transformed into anxiety, 4) his fear of horses was symbolic of his fear of his father, 5) the purpose of the illness was to keep near his mother and finally 6) his phobia disappeared because he resolved his oedipus complex.

Let us examine each of these points.

1) That Hans derived satisfaction from his mother and enjoyed her presence we will not even attempt to dispute. But nowhere is there any evidence of his wish to copulate with her. Yet Freud says that, "if matters had lain entirely in my hands . . . I should have confirmed his instinctive premonitions, by telling him of the existence of the vagina and of copulation.". The "distinctive premonitions" are referred to as though a matter

of fact, though no evidence of their existence is given.

The only seduction incident described (see above) indicates that on *that particular occasion* Hans desired contact of a sexual nature with his mother, albeit a sexual contact of a simple, primitive type. This is not adequate evidence on which to base the claim that Hans had an oedipus complex which implies a sexual desire for the mother, a wish to possess her and to replace the father. The most that can be claimed for this "attempted seduction" is that it provides a small degree of support for the assumption that Hans had a desire for sexual stimulation by some other person; (it will be recalled that he often masturbated). Even if it is assumed that stimulation provided by his mother was especially desired, the two other features of an Oedipus complex (a wish to possess the mother and replace the father) are not demonstrated by the facts of the case.

2) Never having expressed either fear or hatred of his father, Hans was told by Freud that he possessed these emotions. On subsequent occasions Hans denied the existence of these feelings when questioned by his father. Eventually, he said "Yes" to a statement of this kind by his father. This simple affirmative obtained after considerable pressure on the part of the father and Freud is accepted as the true state of affairs and all Hans' denials are ignored. The "symptomatic act" of knocking over the toy horse is taken as further evidence of Hans' aggression towards his father. There are three assumptions underlying this "interpreted fact" first, that the horse represents Hans' father: second that the knocking over of the horse is not accidental; and third, that this act indicates a wish for the removal of whatever the horse symbolized.

Hans consistently denied the relationship between the horse and his father. He was, he said, afraid of horses. The mysterious black around the horses' mouths and the things on their eyes were later discovered by the father to be the horses' muzzles and blinkers. This discovery undermines the suggestion (made by Freud) that they were transposed moustaches and eye-glasses. There is no other evidence that the horses represented Hans's father. The assumption that the knocking over of the toy horse was meaningful in that it

was prompted by an unconscious motive is, like most similar examples, a moot point. Freud himself (3) does not state that *all* errors are provoked by unconscious motives and in this sense "deliberate." This is understandable for it is easy to compile numerous instances of errors which can be accounted for in other, simpler terms²¹ without recourse to unconscious motivation or indeed motivation of any kind. Despite an examination of the literature we are unable to find a categorical statement regarding the frequency of "deliberate errors." Furthermore, we do not know how to recognize them when they do occur. In the absence of positive criteria the decision that Hans's knocking over of the toy horse was a "deliberate error" is arbitrary.

As there is nothing to sustain the first two assumptions made by Freud in interpreting this "symptomatic act," the third assumption (that this act indicated a wish for his father's death) is untenable; and it must be reiterated that there is no independent evidence that the boy feared or hated his father.

3) Freud's third claim is that Hans's sexual excitement and desire for his mother were transformed into anxiety. This claim is based on the assertion that "theoretical considerations require that what is today the object of a phobia must at one time in the past have been the source of a high degree of pleasure". Certainly such a transformation is not displayed by the facts presented. As stated above, there is no evidence that Hans sexually desired his mother. There is also no evidence of any change in his attitude to her before the onset of the phobia. Even though there is some evidence that horses were to some extent previously a source of pleasure, in general the view that phobic objects must have been the source of former pleasures is amply contradicted by experimental evidence. Apart from the numerous experiments on phobias in animals which disprove this contention the demonstrations of Watson and Rayner and Jones have clearly shown how phobias may be induced in children by a simple conditioning process. The rat and rabbit used as the conditioned stimuli these demonstrations can hardly be regarded as sources of "a high degree of pleasure," as the same applies to the generalized stimuli of cotton wool.

4) The assertion that Hans's horse phobia

symbolized a fear of his father has already been criticized. The assumed relationship between the father and the horse is unsupported and appears to have arisen as a result of the father's strange failure to believe that by the "black around their mouths" Hans meant the horses' muzzles.

5) The fifth claim is that the purpose of Hans's phobia was to keep him near mother. Aside from the questionable view that neurotic disturbances occur for a purpose, this interpretation fails to account for the fact that Hans experienced anxiety even when he was out walking *with his mother*

6) Finally, we are told that the phobia disappeared as a result of Hans's resolution of his oedipal conflicts. As we have attempted to show, there is no adequate evidence that Hans had an oedipus complex. In addition, the claim that this assumed complex was resolved is based on a single conversation between Hans and his father (see above). This conversation is a blatant example of what Freud himself refers to as Hans having to "be told many things he could not say himself, that he had to be presented with thoughts which he had so far; *shown* no signs of possessing, and that his attention had to be turned in the direction, that his father was expecting something to come".

There is also no satisfactory evidence that the "insights" that were incessantly brought to the boy's attention had any therapeutic value. Reference to the facts of the case shows only occasional coincidences between interpretations and changes in the child's phobic reactions. For example, "a quiet period" early followed the father's statement that the fear of horses was a "piece of nonsense" and that Hans really wanted to be taken into his mother's bed. But soon afterwards, when Hans became ill, the phobia was worse than ever. Later, having had many talks without effect, the father notes that on March 13 Hans, after agreeing that he still *wanted* to play with his widdler, was "much less afraid of horses."

On March 15, however, he was frightened of horses, after the information that females have no widdlers (though he had previously been told the opposite by his mother). Freud asserts that Hans resisted this piece of enlightenment because it aroused castration fears, and therefore no

therapeutic success was to be observed. The "first real improvement" of April 2 is attributed to the ("moustache enlightenment" of March 30 later proved erroneous), the boy having been told that he was "afraid of his father precisely because he was so fond of his other." On April 7, though Hans was constantly improving, Freud commented that the situation was "decidedly obscure" and that "the analysis was making little progress"²²

Such sparse and tenuous data do not begin to justify the attribution of Hans's reverie to the bringing to consciousness of various unacceptable unconscious repressed wishes. In fact, Freud bases his conclusions entirely on deductions from his theory. Hans's latter improvement appears to have been smooth and gradual and unaffected by the interpretations. In general, Freud infers relationships in a scientifically inadmissible manner: if the enlightenments or interpretations given to Hans are followed by behavioral improvements, then they are automatically accepted as valid. If they are not followed by improvement we are told the patient has not accepted them, and not that they are invalid. Discussing the failure of these early enlightenments, Freud says that in any event therapeutic success is not the primary aim of the analysis,²³ thus sidetracking the issue; and he is not deflected from claiming an improvement to be due to an interpretation even when the latter is erroneous, *e.g.*, the moustache interpretation.

No systematic follow-up of the case is provided. However, fourteen years after the completion of the analysis, Freud interviewed Hans, who "declared that he was perfectly well and suffered from no troubles or inhibitions" (!). He also said that he had successfully undergone the ordeal of his parents' divorce. Hans reported that he could not remember anything about his childhood phobia. Freud remarks that this is "particularly remarkable." The analysis itself "had been overtaken by amnesia!"

An Alternative View of Hans' Phobia

In case it should be argued that, unsatisfactory as it is, Freud's explanation is the only available one, we shall show how Hans's phobia can be understood in terms of learning theory, in the theoretical framework provided by Wolpe (14). This approach is largely Hullian in character and

the clinical applications are based on experimental findings.

In brief, phobias are regarded as conditioned anxiety (fear) reactions. Any "neutral" stimulus, simple or complex, that happens to make an impact on an individual at about the time that a fear reaction is evoked acquires the ability to evoke fear subsequently. If the fear at the original conditioning situation is of high intensity or if the conditioning is many times repeated the conditioned fear will show the persistence that is characteristic of *neurotic* fear; and there will be generalization of fear reactions to stimuli resembling the conditioned stimulus.

Hans, we are told, was a sensitive child who "was never unmoved if someone wept in his presence" and long before the phobia developed became "uneasy on seeing the horses in the merry-go-round being beaten" (p.254). It is our contention that the incident to which Freud refers as merely the exciting cause of Hans's phobia was in fact the cause of the entire disorder. Hans actually says, "No. I only got it [the phobia] then. When the horse in the bus fell down, it gave me such a fright, really! That was when I got the nonsense". The father says, "All of this was confirmed by my wife, as well as the fact that the anxiety broke out immediately afterwards" (p.193). The evidence obtained in studies on experimental neuroses in animals and the studies by Watson and Rayner, Jones and Woodward on phobias in children indicate that it is quite possible for one experience to induce a phobia.

In addition, the father was able to report two other unpleasant incidents which Hans had experienced with horses prior to the onset of the phobia. It is likely that these experiences had sensitized Hans to horses or, in other words, he had already been partially conditioned to fear horses. These incidents both occurred at Gmunden. The first was the warning given by the father of Hans's friend to avoid the horse lest it bite, and the second, when another of Hans's friends injured himself (and bled) while they were playing horses.

Just as the little boy Albert (in Watson's classic demonstration) reacted with anxiety not only to the original conditioned stimulus, the white rat, but to other similar stimuli such as furry

objects, cotton wool and so on Hans reacted anxiously to horses, horse-drawn buses, vans and features of horses, such as their blinkers and muzzles. In fact he showed fear of a wide range of generalized stimuli. The accident which provoked the phobia involved two horses drawing a bus and Hans stated that he was more afraid of large carts, vans or buses than small carts. As one would expect, the less close a phobic stimulus was to that of the original incident the less disturbing Hans found it. Furthermore, the last aspect of the phobia to disappear was Hans's fear of large vans or buses. There is ample experimental evidence that when responses to generalized stimuli undergo extinction, responses to other stimuli in the continuum are the less diminished the more closely they resemble the original conditional stimulus.

Hans's recovery from the phobia may be explained on conditioning principles in a number of possible ways, but the actual mechanism that operated cannot be identified, since the child's father was not concerned with the kind of information that would be of interest to us. It is well known that especially in children many phobias decline and disappear over a few weeks or months. The reason for this appears to be that in the ordinary course of life generalized phobic stimuli may evoke anxiety responses weak enough to be inhibited by other emotional responses simultaneously aroused in the individual. Perhaps this process was the true source of Little Hans's recovery. The interpretations may have been irrelevant, or may even have retarded recovery by adding new threats and new fears to those already present. But since Hans does not seem to have been greatly upset by the interpretations, it is perhaps more likely that the therapy was actively helpful, for phobic stimuli were again and again presented to the child in a variety of emotional contexts that may have inhibited the anxiety and in consequence diminished its habit strength. The *gradualness* of Hans's recovery is consonant with an explanation of this kind.

Conclusions

The chief conclusion to be derived from our survey of the case of Little Hans is that it does not provide anything resembling direct proof of psychoanalytic theorems. We have combed

Freud's account for evidence that would be acceptable in the court of science, and have found none. In attempting to give a balanced summary of the case we have exuded a vast number of interpretations but have tried not to omit any material facts. Such facts, and they alone, could have supported Freud's theories. For example, if it had been observed after Gmunden that Hans had become fearful of his father, and that upon the development of the horse phobia the fear of the father had disappeared, this could reasonably have been regarded as presumptive of a displacement of fear from father to horse. This is quite different from observing a horse phobia and then asserting that it must be a displaced father-fear without ever having obtained any direct evidence of the latter; for then that which needs to be demonstrated is presupposed. To say that the father-fear was repressed is equally no substitute for evidence of it.

Freud fully believed that he had obtained in Little Hans a direct confirmation of his theories, for he speaks towards the end of "the infantile complexes that were revealed behind Hans's phobia" (p.287). It seems clear that although he wanted to be scientific Freud was surprisingly naive regarding the requirements of scientific evidence. Infantile complexes were not *revealed* (demonstrated) behind Hans's phobia: they were merely hypothesized.

It is remarkable that countless psychoanalysts have paid homage to the case of Little Hans, without being offended by its glaring inadequacies. We shall not here attempt to explain this, except to point to one probable major influence—a tacit belief among analysts that Freud possessed a kind of unerring insight that absolved him from the obligation to obey rules applicable ordinary men. For example, Glover, speaking of other analysts who arrogate to themselves the right Freud claimed to subject his material to "a touch of revision," says, "No doubt when someone of Freud's caliber appears in our midst he will be freely accorded . . . this privilege." To accord such a privilege to anyone is to violate the spirit of science.

It may of course be argued that some of the conclusions of Little Hans are no longer held and that there is now other evidence for other of the conclusions; but there is no evidence that in

general psychoanalytic conclusions are based on any better logic than that used by Freud in respect of Little Hans. Certainly no analyst has ever pointed to the failings of this account or disowned its reasoning, and it has continued to be regarded as one of the foundation stones on which psychoanalytic theory was built.

Summary

The main facts of the case of Little Hans are presented and it is shown that Freud's claim of "a more direct and less roundabout proof" of certain of his theories is not justified by the evidence presented. No confirmation by direct observation is obtained for any psychoanalytic theorem, though psychoanalysts have believed the contrary for 50 years. The demonstrations claimed are really interpretations that are treated as facts. This is a common practice and should be checked, for it has been a great encumbrance to the development of a science of psychiatry.

Footnotes

1. Author note.
2. Author information.
3. This is nothing but surmise—yet Freud asserts "there can be no doubt" about it.
4. Earlier his age during the summer holidays is given as four and a half. Unfortunately, there is no direct statement as to the length of the holiday.
5. Incidentally contradicting what Hans's mother had told him earlier .
6. The mere fact that Hans repeats an interpretation he has heard from his father is regarded by Freud as demonstrating the accuracy of the interpretation; even though the child's spontaneous responses noted earlier in the paragraph point clearly in the opposite direction.
7. It is pertinent at this point to suggest that Hans "resisted" this enlightenment because his mother had told him quite the opposite and his observations of his sister's widdler had not been . contradicted. When he was four, Hans had observed that his sister's widdler was "still quite small". When he was four and a half, again while watching his sister being bathed, he observed that she had "a lovely widdler". On neither occasion was he contradicted.

8. Hans' baby sister, *not* his mother. Again, the more spontaneous response directly contradicts Freud's interpretation. Thus Freud's subsequent comment that Hans only confirmed the interpretation of the two giraffes as his father and mother and not the sexual symbolism, transgresses the facts.
9. Six days later the father reports, "I was at last able to establish the fact that it was a horse with a leather muzzle."
10. A good example of the success of indoctrination.
11. One of many leading questions, the positive answer to which of course proves nothing. It is worth noticing how the same question, differently phrased, elicits contrasting answers from Hans. When asked earlier what he thought of when the horse fell, Hans replied that he thought it would always happen in future.
12. "Hans's mother gives him his bath" (Father's note).
13. "To take it away to be repaired" (Father's note).
14. Leading question.
15. A very questionable affirmation.
16. Original italics suggest a significance that is unwarranted, for the child has been maneuvered into giving an answer contradicting his original one. Note the induced "evidence" as the conversation continues.
17. Nevertheless, both the theory and practice of psychoanalysis are built on these "not . . . impartial scientific investigations." For Freud to admit this weakness has some merit, but the admission is neither a substitute for evidence nor a good reason for accepting conclusions without evidence.
18. Thus a theoretical statement, beginning with "We may assume" ends up as a "fact." The only fact is that the assumed sexual excitement is assumed to have changed into anxiety.
19. But in fact the child was thinking of a muzzle (see above).
20. It should be noted, however, that Hans's horse-phobia and general agoraphobia were present even when he went out with his mother.
22. By Freud's admission Hans was improving despite the absence of progress in the analysis.
23. But elsewhere (*p.246*) he says that a psychoanalysis is a therapeutic measure and not a scientific investigation!