

PAS LECTURE #11

00121

ARITHMETIC ✓

I have talked as far as test performance before about how remembering numbers has both an I and E difference and an I and Ec difference in that there are certain Ec's that can learn to do numbers and various things in terms of this. And I should have put it another way around two. An E individual, everything else being equal, the E is much more likely to be a person who will remember a face better than he will a name. The E individual, particularly the Eu individual, one who has made relatively little compensation or is not defending too much against his E tendency, often times has extremely effective visual memory, in the sense that they will be able remember faces very well and remember events and to a certain extent an E individual and particularly an Eu individual is likely to be the kind of an individual who in many cases will forget events but have rather strange recall about events. Now I can give an example of this, a specific example in terms of a certain individual who was asked under certain circumstances to try to describe a particular block that happened to be in London. A particular block in London because there was some need to have some knowledge about how the houses were set up there and the things that went on in terms of this. This guy had been away from this for a long period of time and could not at all recall this particular block. They began to talk to him a little bit about it, and finally somebody said "well not that's the place where the cart is located where they're selling flowers." The minute somebody said this to him, suddenly he was able to recall the entire block, but what he needed was some kind of visual clue, in terms of being able to recover a whole series of details. This is Eu, is more likely to be an Eu individual or an E in

00192

general, that in a sense of recall, in any particular situation calling for recall, that some kind of visual memory is likely to trigger off a whole group of things. An Eu or Ec individual might not have very much capacity if somebody were to say "tell me about Joe Bloe. Do you remember Joe Bloe?" An Ec or an Eu often times says "Who's Joe Bloe." Well Joe Bloe is the one with the green hat whose father was a minister. Suddenly once that you've put into the context, the visual recall in terms of this everything that you've talked about has come in terms of this. With many an I individual you could say to him, "Remember the guy in the green hat, and well his father is a minister, well you know Joe Bloe?" "Oh yeah, Joe Bloe". Because again the recall of the I individual is likely to have much more of a verbal recall aspect than a visual recall. In general if you get what seems like a natural ability to remember names, an I individual is likely to have more natural ability of remembering names. An E individual is likely to have much more of a visual ability to remember faces. Now, in terms of what the discipline one has to put in terms of this is that the E individual has to learn to put names with the faces he remembers. And the I has to learn to put faces with the names that he remembers. The opinions in both cases, people may tell about "I have a hard time remembering names" but when they say they have a hard time remembering names it may be for two entirely different reasons. An I individual may discipline himself on the basis of where he will stand in a receiving line and everybody goes through and introduces himself and afterwards there is many an I individual who can recall the names of anybody who went through that line. But they may meet them somewhere along the line, and have no memory of ever meeting this person before. And the person will say "I'm Joe Bloe" and an I

00133

often times will immediately "Oh yes, I met you at the cocktail party." The E individual is likely to meet somebody and he will not have remembered the names of everybody going through the line. He then sees them on the street and again seeing them on the street, he will know darn well that he had seen that individual before and will begin to _____ a little anything along the line in terms of this and even if the guy comes and says "I'm Joe Bloe" this is not likely to make a particular instant impact upon him. But if he says "I'm Joe Bloe. I met you at John's cocktail party on New Year's." the thing comes into focus and the individual is able to recall it or remember. This particular type of recall and this particular type of identification begins to be extremely complicated in debriefing people. I think certainly in my vast experience we've had a lot of experience with the _____ with showing people a group of photographs and asking whether they can identify them. Now there's many an I individual that you can show them these faces and they will say "I don't remember seeing any of these people." Or there's the E individual if you show him a group of photographs and he is likely to say "Yes, I've seen him, yes, I've seen him, yes, I've seen him." because there will be a tendency for an E individual to be able to recognize from a picture in terms of this. In the same thing you can take a list of names and you can give an I individual a list of names and he's going to do a pretty good job of telling you, "yes, I've met that fellow, I've known that fellow, I've known him," and then if you take the pictures with the list of names, sometimes you can get the I individual to do a pretty good job of recalling and remembering who it is if you give him his name. "Yes, that is so-and-so."

The E individual is going to be much more confused in his capacity to

00134

be able to remember the names. Now, the thing that happens in terms of this or whatever represents discipline, is that the Ec individual often times moves into the direction in which he has to actively work in the sense of trying to work out some way on the basis of which he will remember names and be able to associate them with faces. Now to me one of the best examples of what I would call probably an Ec individual in relationship to names and faces is the Postmaster General Jim Farley. Jim Farley was extraordinarily well known because of his ability to remember names. Now from my standpoint the way that he did this is that he was an individual that had marked visual memory. That is he could move in the direction of being quite sure that he could recognize whether he'd met anyone before. But the effort that would have to be put in terms of this would be in the direction of being able to place the names with the visual response that he had had. And more often than not, the person who is famous for remembering names and recognizing people, and I can use my own father as an example, my own father who was an E and an Ec, as a college administrator in a relatively small college because of the fact that he had great difficulty remembering names early in the beginning of this because he was operating in the situation that when he met people he always their names in terms of it. He had the capacity up until the day of his death, that he could meet people, and I've seen it happen a thousand times. I can remember one in particular. We were stopped in New Mexico on a vacation. I was about 17 and he was in his 60's at the time. We were stopped because there was a freight train and there was a little line of cars up and down the way; and somebody got out of the third car and came running down and said "Well hwllo, Dean Gittinger." My father looked at him a minute and said "Why yes, you're Forest Humes and you were at the

00135

University in 1917." Out of the clear blue sky, because the kind of visual memory plus the discipline that he developed over a period of time enabled him to remember and he was famous for his ability to remember names. Now I'm bearing down on this because all I'm saying is that the E does not naturally remember names. Therefore, the E that is very bad in remembering names or if he makes a discipline or moves in the direction of doing something about it, he is likely to really excel in it.

The I individual is naturally ready if he listens, has a pretty good capacity to remember names but he's not going to put faces to them very well unless he works at it. Consequently there is many an I individual who remembers names without effort and because he remembers names without effort and because he doesn't recognize people when he sees them has a certain amount of capacity, has a general amount of feeling that he's not very good at remembering names when in reality he is. Now again in terms of behavior, I mentioned that there's a sort of writing notes in a State Department type of environment or a Japanese type of environment on the basis of where part of the way in which people always identify themselves is by giving cards, a passing on of cards to someone. In passing on a card to someone, and what you will see if you watch sometimes in terms of behavior in relationship to this, that someone will come along and say "This is Mr. Wong, Labart Wong of such-and-such a place." The I is likely to say "Glad to meet you Mr. Wong. Here is my card." And Mr. Wong gives his card and the I will put the card in his pocket. The E will "Glad to meet you Mr. Wong." Now the Japanese is an I culture, and an E is one of the examples in relationship to this, if its good for both E's and I's, but it still is more of an I trend in terms of this. One of the favorite kinds of cards that the Japanese put out now at this particular point in time is a card, that is the regular card which has the name, and

00126

address and their affiliation and then put in a watermark way is a picture of the person on the card. And you can hold the card up to the light and you can see the person's picture is on the card. Now that is either as essentially the I who is in a sense trying to relate the name to the face. Also related is the phenomena that I think is more likely to occur in E individuals than I individuals and to a very great degree more likely in an E individual is the "deja rue" phenomena. The deja rue phenomena which is the phenomena on the basis of a person being in a situation and being absolutely certain that they've been there before or that they've done the same thing again. By hypothesis, what I'm trying to say in relationship to this is that because the E individual is likely to be much more aware of events things that are going on in terms of this and because he has greater visual memory when he is in a situation in which there are visual similarities, like the business of which I talked earlier of the flower cart reminding the individual of a whole sequence of events, there can be certain kinds of environmental cues that an individual gets which trip off a visual memory which is likely to make the individual feel that he has experienced this before because there is an element in this that to some degree he has experienced before. The I individual is less likely to have this particular kind of experience because there is a less awareness.

Again it sounds like I'm rambling a little bit but the other I-E difference that to me is a very significant one in terms of the changes. But if you watch in both cases and particularly Eu's this is more likely to occur with than Iu's. The c's the benefit, there begins to be compensated, there begins to be complications, but in its pure form an Eu walking in the sun with their sunglasses on as they walk into a drugstore to pick up something, the first thing that the Eu is going to do when he

00127

walks into the dark area of the room is to take off his sunglasses. Because he is immediately and acutely aware of the perceptual changes that are taking place.

The I individual is likely to not be aware of as much of a change and not be as bound in terms of as much of a change and the Iu is going to be capable of walking into that room and continuing to operate as though, what I would say as an Eu if I were an Eu, he would be operating as though he could see when I would be sure he couldn't. And that you know, you watch in terms of this, it's one of these signs unless you really understand the significance of it, many of us wonder why in the world it's necessary on the Pennsylvania Turnpike as you move up to one of those big tunnels, there's great big signs "Remove sunglasses." Now it's only I's that they have to tell to remove sunglasses, any E driving in, the minute that that change takes place he desperately pulls off his glasses if he has forgotten in a sense to do that, because the change which takes place is so dramatic and so disabling to him that he is not able to function. Now the I individual has much more capacity sometimes you can say to think he can function in terms of this, because again they've had to make laws in certain states now on the basis that you can't wear sunglasses and drive at night. Now an E would never wear sunglasses and drive at night but an I oftentimes has the feeling that he can see better with those glasses than he really can, and his vision is impaired. Also related to this, and this again is a dangerous generalization because going blind is a traumatic event to anyone. But relatively speaking an I individual going blind has a different capacity of adjusting to that situation than does an E individual going blind. In a sense the adaptation or the requirements because of the different way in which people see what is going on outside of them and the way that they mediate what they see going on outside of

00128

them is quite different. The same thing is true in the aging process, an E individual grows older and begins to lose some of his visual acuity and has to move in the direction of glasses. An Eu individual is going to be much more dependent upon his glasses and at the same time is going react with more anxiety to the fact that he cannot see as well as he could. The I individual is going to be able to make the adaptation or change over a period of time in a more smooth and in a less certain way, traumatic

Cleo: You said that the E has the phenomena of the deja vue. The E is more apt to do it. What about Marcel Proust literature you were mentioning the other day and with an I apparently? And he's the essence of the deja vue.

John: Well, as a matter of fact, I don't have enough information to be absolutely certain that I should be what I'm getting into say. I have veered-ish off at one point I used to use Marcel Proust as an example of a schizophrenic. The more there are schizoid and extreme schizophrenic adjustments I more that I look and the more that I read and the more that I see in terms of what he's doing, he is a highly compensated E. In terms of what I was talking about the other day, he is the pseudo schizophrenic, the kind that I was going to talk about last time, and as good an example of this, a pseudo schizophrenic, one of the characteristics of a schizoid adjustment in general, is that a schizoid person can work well in the presence of a lot of distraction.

Another example in terms of this, in World War II in the selection of people to be resistance fighters, Americans to be resistance fighters, and this particular type that I was associated with were in terms of taking people, Americans, to go into the Phillipines, to exist in the Phillipines therefore the Americans could get back in to it. And they had to go live

00129

in the woods and live in a certain amount of resistance. The original idea was that the people who grew up in the farms, and in Missouri, Iowa, Texas and various places, they were rugged individuals and were used to living in the wilds. If you could get the people who would be most likely able because of the emphasis with living off of the environment. These people were in many instances, and we also were very eager in the early part of this, that if we could get someone with athletic history and particularly if they were football players, and the best football players would obviously be the ones who had been captains of their teams, that getting captains of football teams growing up in areas like Texas, Oklahoma, various places we were getting tough, authoritative, self-sufficient, independent people. But what we were getting were E individuals, who in the sense that one of the reasons they were playing football, they may have enjoyed playing it in a sense of this but they were playing it because they needed a certain amount of attention, they needed a certain amount of relationship, coming out of that particularly we couldn't have picked the worse ones than the captains because these are the ones who had status needs on the basis of which they have tried to earn status by becoming captains of the team and you put those boys out in the middle of the Phillipine jungles or whatever and there's nobody applauding them and if there's nobody reassuring them and no one supporting them they absolutely at a total loss. The ones who were the most effective in the resistance over the long haul in the Phillipines were Jewish boys from New York City, who in a sense had lived an independent existence in the midst of great distraction. They didn't need any particular kind of applause. In other words the schizoid individual, coming back to Marcel Proust again, remember a primary characteristic of Marcel Proust was the isolation that was absolutely essential for him to be productive. The room that he stayed

Marcel Proust

00130

in for twenty years of his life, the pulled, drawn shade. These are all possible and probable indications that this was an E individual, who in a sense, the moving in what I would call a pseudo schizophrenic state, but he needed props to keep him out of context. Therefore deja vue would be one of the primary things that would happen in terms of this and because, and again I've seen it happen in relationship to certain kinds of E individuals who suffered long periods of confinement as prisoners of war and various things in the early period of time. There's a very famous English woman ^{E. Bowen ?} named (Bone?) who talks a great deal about how the cracks on the wall in relationship to this, that she maintained her quote sanity in terms of looking at those cracks on the wall and thinking "Now, that's the Thames River and this is the estuary coming down here" and she was able, now this was a kind of contrived deja vue, she was pulling on that wall and using the little bits of clues that she got to keep her reality.

Now Marcel Proust lying in the dark and thinking and moving in the direction in terms of this, I'm sure that he would get the feeling of things having happened before but they would all be a maze of things that had happened before he had pulled the blind.

That's the reason why I think Marcel Proust is in fact of a deja vue. He would expect to be much more. And you get his Ec terminal a kind of deja vue phenomena on the basis of I think it may have happened to all of you somewhere along the line in terms of the street, the person walking down the street actively talking to himself. Now this is an E schizophrenic, talking and muttering and then turns to himself and in a way beginning to respond, if you will, in quoting having them look at somebody and have them in some cases begin to talk to you, either hostilely in many instances because they remind you that whatever you do if you look

Eysenck?

00131

like somebody that fits into these theories that they have in relationship to this you are likely to be reacted to with a semi or a kind of a deja vue phenomena because this is more likely to be the E than the I I think.

Without those university transcripts, without the business of the wirtten manuscripts, he remembered names because each time that he saw a face he could associate a name with it. Again it's kind of hard to explain the difference to this. The I individual in a sense remembers the name as well as he can in terms of this.

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e Beverly: On the PAS and the hemispheric brain function that the verbal would be more right sided.

John: It's not on the PAS, but it certainly and I have lost it right now and I've been trying to recatch it. There was quite an article in SCIENCE this year ^{or two?} a whole back which was the best example of E and I and hemispheric relationships, on the basis of what happens to individuals when they are attempting to do certain kinds of things I'm going to locate this again but, no there hasn't been any specific, other than the bald statement that I've said all along that visual memory is a characteristic that is higher developed in the E, and verbal is higher developed in I. In each case what a compensation represents or a control or a change is in a sense a mediating and moving into the direction on the basis of which an individual explodes. For example, verbal memory in its extreme begins to move in the autistic do you see what I mean verbal memory represents a great deal of capacity for autism, not in any particular relationship with what is going on, it is all an interalized type of thing in terms of this. The second level or another level, a level of the relationship of which there begins to be a control or relationship of it is in the sense of abstractness. Abstractness is likely to a characteristic of an I

Implications for religious beliefs?

00132

individual utilizing his I capacity, utilizing his verbal memory. That verbal memory is likely to apply itself effectively to the things that are theoretical, abstract, and so forth, or in another area, an area like mystical. A mystical type of thing in terms of this, I mean every thing else being equal, an I individual being told that there are fairies in the woods, can abstractly make the presence of fairies and believe that those fairies are there, and can be quite mystical and remain that way for a good, long, solid period of their life. The E individual, a particularly the immature, the young, E individual, the fact that his visual memory is going to be better than his verbal or his abstract memory in relationship to this, you tell him there are fairies in the woods, he is going to have to go look for signs or those fairies in the woods, and there is some instance in where he sees fairies, he never believes in fairies. That is the tendency that is likely to go in terms of this, in as simple a myth as Santa Claus and the E child and an I child. The I child will take abstractly the presence of Santa Claus and even in a certain kind of way in a relatively unquestioned way. It is the E child is much more likely to be the one is going to sneak to stay up all night to see Santa Claus, to try to verify the presence of Santa Claus by something in terms of leaving food out for him and having it be gone in the morning. Again this is a complicated thing to talk about, but generally speaking one of the things about an E, a compensated E individual, is likely to become very fascinated with abstractions. Therefore, an Ec individual is an individual who is not naturally interested things that are abstract who becomes unduly preoccupied with abstract things, and do you see he's having to work at it. In the same way that the abstract I, because that abstracting in a sense in terms of this going to make him less of an observer, the thing we ended

How do we know this? 00133

up talking about before in relationship to this, a modified, compensated, changed controlled I is likely to be the kind of individual who becomes extremely concerned with the prospects of being observed. And again you get the phenomena that I've said over and over in terms of this, that an individual trained in the sense of being an observer is actually a better observer than is an E because there is much more of a reward for him. And that although, for example, an IF individual is naturally inclined to be a philosopher, there are relatively few IF's who become philosophers. It is more likely to be the EF who was never inclined to be a philosopher who will overcome that tendency to be unable to understand any relationship to this who is likely to become a philosopher. Now in some cases an effective IF learning to develop his philosophical, he's likely to be the greater philosopher, because he has developed and the EF philosopher is likely to be the numdane one if you see, maybe because he has worked so hard to try to be a philosopher, if skillful.

Now the last thing that I wanted to start out on a little bit today was to talk about performance on the arithmetic ^{subject} ~~subject~~ I'm afraid that with new math and with a lot of things, in terms of this, that a lot of the age old characteristics that made the arithmetic as good an assessment as it was for my generation is not quite as good for Roger's generation. I haven't got this all straightened but much. The first thing is that arithmetic as a task on the basis of which somebody has to learn a relationship to this, all of us know somewhere along the line that in terms of the educational process which an individual goes through that arithmetic, currently mathematics and that's wrongly, arithmetic begins to be one of the first subjects on the basis of which there is a considerable amount of difficulty and there's likely to be a certain amount of difficult

Arithmetic
R activity

00134

for anyone, any where along the line in terms of this. The first thing in relationship to arithmetic depending upon the period in time in which you're talking about, is that learning arithmetic is more an R activity than it is an F activity. It is an R activity because in most cases the process that goes in relationship to arithmetic is you rote learn, at least in one period of time in relationship to this, you rote learn the multiplication tables. Now, the multiplication tables have no particular meaning anywhere along the line in relationship to this. So in one sense there is an R characteristic in relationship to learning arithmetic. The second thing in terms of this, there is an I relationship in terms of learning arithmetic because it begins to move into the direction in which you are taking abstractions and generalizing abstractions. So consequently, the IR individual who is paying attention usually can rote learn, in a thing like arithmetic somewhere along the line, with relatively little effort. See what I mean is that it is something that comes relatively easy for him. The ER individual is likely to be able to memorize in a sense in terms of this but it will take much more effort, it will take much more energy and it will carry with it which is often times related in terms of this particularly with the ER, the ER because he has to discipline himself in a sense to be able to learn something like the multiplication tables and because in a certain extent unlike the IR the ER often has to be punished, if you see, to do make him do what it is that is required of him to do. Arithmetic is a subject which very early begins to take on an emotional context, in practically every child's experience in terms of school life. An emotional content on the basis of which it has as far as I'm concerned a tremendously long lived, long termed type of thing in terms of this. Now, to give an example, of one of

00125

the things that happens in relationship to this. The IR was the one, or the IF as long as they're paying attention, they get into the emotional problems in connection with the arithmetic because if they don't pay attention they are, very definitely there is emotional action in terms and on the basis of which they have to move in the direction of paying attention. The second thing that begins to play in terms of this is that the IR individual oftentimes has a considerable amount of capacity to rote learn the multiplication tables but where is the first place that the I begins to get, now that's not only the I's that have the trouble, but the first place again using my own generation's type of arithmetic involved in this, the first place that the IR or the IF individual begins to get into trouble with arithmetic was in about the third or the fourth sometimes the second grade with the introduction of horrible things that they used to call story problems. And a story problem was on the basis of which you would in terms of arithmetic theory, removing from you now have learned the symbols and the multiplication tables, now we're going to give you the exercises on the basis of which you are going to use what you've learned to apply and move it in a meaningful way. You can move it the direction of which a train goes so many miles an hour and the various things that go in terms of this. Now at this point there begins to be all kinds of confusion begun again in terms of this. Now this is all important because if you go back and look at the arithmetic subtest, well actually it's all story problems. And one of the things that is very interesting in terms of this is that whatever the emotional content, or the lack of attention or the various things that occur in terms of this the relationship between a person's mathematical ability and his ability to do the arithmetic problems in the Wechsler are not really then at fault. You

00136

will find many an Iu individual who is ingenuous in calculus was totally unable to do these effectively because of the emotional reactions that they get when you begin to give them the kinds of things that are involved in the story problems that are related in the test. Now what is one of the things that is likely to happen in relationship to this. One of the things that happens in terms of this is that because there are certain kinds of emotional events which take place and that certainly in my own experience, and I think this is borne out over a period of time and again this is an overstatement for effect, but elementary school mathematics teachers, are at least in my day, the meanest people I have ever known. Now they weren't mean they were Ec's, do you follow now what getting at to say in terms of this. There were Ec's and they were the individuals who declared they realized that if you didn't get a certain kind of discipline you were not going to learn what was necessary to do these particular problems and the problems and way, how well you did in arithmetic was an indication of how well disciplined you were and because they had overcome all of their weakness in relationship to this they were inordinately proud of their ability to do arithmetic and inclined to be very punishing to those people who could not do it because either they were not paying attention or they were not being disciplined enough to learn what they were doing. Now the thing in terms of this, practically every EF in the world probably went to pieces over arithmetic for a certain period of time because it would be pretty hard for them. Being an IF would detach themselves and not pay any attention particularly to the arithmetic type of thing, the thing in many others would be more into the direction of attempting to overcome it. Now if you give the Wechsler all over again you can almost get a microcosm of the person's experience with arithmetic. in fact of the matter. the little WDI always

00137

started out with the statement "Now I'm going to see how good you are in arithmetic." Where you could run many individuals you could almost expect that they are going to miss two or three of the problems just because you have to give them that question. Mainly because you are putting off, because one of the things you are reproducing all of that tension which is related to begin, of course again the whole other thing about a story problem is that it's not just a matter of doing the story problem, but they were almost holding a stopwatch over you. In fact they gave prizes to the ones who could do the ones fast enough. And even to this day if I have to do a problem in a hurry, I go all to pieces just because all I can recover and recall in my mind is how horrible it was and how confused I was because we were working against time on an arithmetic test. All right so you did the statements, and comes to turns it in, "I'm going to see how good you are at arithmetic". You have some kind of an individuals who don't do near half of them because you have shattered their confidence. And you've got the others who will say "good, I'll show you." And they will overachieve in relationship to this. Because one of the things that they had learned to do and this is why they are the kind of the independent, and the self-disciplined is likely to show up very well by the manner or by the method in which the individual approaches the arithmetic subject.

Cleo: Which one will do that? Will show that he can do it?

John: The compensated one this is why the high arithmetic is such a good indicator of an individual's compensations, either I or E and high arithmetic, everything being equal a relatively comfortable for I individual who has paid attention, you give him the arithmetic subtest and what he is likely to do on that subtest is to come up with a score of ten, and a score of ten means that he has gotten every one of them correct, but has gotten no time credit. Or depending upon the, in terms

00138

of this particular group, people with normal levels of 14 on up. Now you move down the line in terms of this a normal I who paid attention who likely to get the first eight problems without any difficulty and he might not get the last two, because they are a little bit above his normal level, or various things in terms of this. But he is not particularly threatened by them. The I individual, the high information, and you begin to get in terms of this when you give him the arithmetic subtest, he does very poorly on the subtest and if he admits it finally goes down the line. Yet he does well on the digit span, but he misses a great deal on the, and what I'm talking now is missing, not not getting time credits, because you see the slower is it too, one part for accuracy, one part for speed, but when he's missing, this begins to be an indication that the individual has not been paying attention during that period of his life in which he should have been learning these particular kinds of skills. He's not been paying attention enough. Therefore, the Iu+ begins to indicate a schizoid kind of an adjustment, this is an indication that the person is not only probably out of some kind of awareness now, but has been for a relatively long period of time. The E individual on the other hand, is going to be the one who in response to the arithmetic subtest, when the subtest is beginning to get to him, he is likely right off the bat to indicate his anxiety, the fact that "I don't think that I do this well." And then one of things that you will get in the E individual when he does the arithmetic and he is relatively normal, he is likely to do or attempt to do all of the ten right, and he may have come fairly close, but one of the things that you will get from the E individual is a tendency to make careless mistakes. Now a careless mistake unlikely to occur in an individual who role plays anything he's supposed to do but is not really comfortable in doing it.

00139

The I individual is not likely to make careless mistakes in arithmetic. He makes careless mistakes in another kind of a test. But where the answer is nine, he's likely to say then, or forth-eight for the ninety six, he gets it part of the way and he stops at forty-eight. Or of the how many yards, for Americans, where he has to compute feet to yards or yards to feet, he is likely to come up with the answer 3, and he'll have to do what the test does in terms of this, read it again. Because you ask him to read it again and see that it says you give him three yards and the answer has feet. And all you have to do is to multiply by the N of 3 and come up your 9. Now that's more likely to be the E arithmetic performance. But now in the case of the E who is moving in the direction of really overcoming his tendency to be careless in arithmetic, his need in the terms of his defensiveness in terms of this, you'll begin to get an indication of an individual being extremely proud of how fast and how well, and he can tell you the correction anywhere along the line, and he is likely to come out with not only all ten of the items correct but he will get the maximum amount of time credit because the kind of independence and the kind of way that he's moved has moved him in the direction of not being disturbed or discouraged. And therefore a very high arithmetic in an E record that is the low digit span record has much more of an indication of intensity than has a very high arithmetic in an I record. The reason for this is that what the high arithmetic in the I record means is that the individual is definitely, consciously aware of the need to respond and relate but it does not take the same kind of intensity for him to over achieve on that arithmetic subtest as it does for the E.

And you will find if you look at the whole series of records, that normal level for that arithmetic ranging 2 and 3 and 4 points above the normal level will occur more frequently in 'E' records than it will in I