

Panic, Training and Personality!

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Panic is a state of unreasoning fear in which the person acts counter to his training and self-interest. In this condition of excitement the higher centres of the central nervous system relinquish control: and the mere primitive brains, together with the emergency nervous system, take over. Man tends to act like a lower order animal desperately struggling to survive. Primitive movement and escape patterns dominate the behaviour.

In such a state, a diver will in effect be asking for death-dealing complications to a complex set of ordinary scuba behaviours. This lack of cortical or thinking control simply cannot deal with elective actions. Automatized activity, such as dropping a weight belt, will come through early on in panic, but in the later phases very little can break the cycle.

Panic is not a primary response pattern of the human organism, but it is secondary or tertiary to a sequence of events or stimuli. These stimuli must occur in a situation of stress, as the individual diver so interprets his particular situation: for what stresses one person might not another. The stimulus situation usually carries with it some degree of strangeness or even may be totally foreign to the diver. This can be realization of being "too deep", sudden disorientation, lack of air, quickly being caught by a strong current, etc. In common, there is an overwhelming sense of not being in charge of one's self and, of course, one's equipment. This flash of awareness acts to alert the pituitary-adrenal medulla sequence for emergency mobilisation, and in a very complex way, the whole organism girds itself to survive - as if it were about to operate without cortical control. Breathing increases rapidly: pupils dilate; eyes open wide and dart apart; the heart beats very much faster; blood vessels in the gut constrict and shunt blood to the limbs.

One can readily see how skilled functioning drops in efficiency. Clutching fingers and awkward limbs do not do well with equipment designed for fine movement, such as releasing a belt buckle. What can't be seen such as equipment attachments and releases hidden from view by a flopping BC, can hardly be manipulated.

This description deals with the extremes and we must also recognise that anxiety or tension states differ from panic. With certain procedures that can be trained into the diver, he can then assert more self-control. Anxiety of this sort, such as examination anxiety, can be useful to tune up the body and perceptions for more efficient procedures. Yet, as most of us know, one can "freeze" in a test and not be able to perform well at all, despite knowing the material. And, in diving, when some of us use amphetamine compounds (such as Sudafed) for vasoconstriction, we are adding to the blood a chemical that acts like the epinephrine the body produces for the alertness of the tension state.

The main point here is for the diver, especially the novice, to be familiar by explanation and thereby experience with these phenomena and not construe them as foreign or bad or shameful. Recognition is the first step to mastery. Each beginning diver needs this as part of his training so that he becomes cognisant of his own individual patterns, says hello to them, and then handles them in such a way that these signs work for him. He doesn't just dismiss them, but searches himself and his situation for clues to what his vigilance system is translating as danger or threatening.

Sixty percent of our respondent divers reported self-awareness of apprehension or tension prior to a

dive. Most often this occurred in the hour preceding entry. And, contrary to expectations from the research with sky-divers, in our sample about one-half of those reporting this had 5 or more years of diving experience.

What correlates with tension states or even with panic? Most of our sample (54%) did not have pre-diving life experience that led to episodes of fear or to panic. Of those who had such an experience, they reported predominantly episodes of specific traumas or well delineated phobic patterns. Gender does not matter in either pre-training or training tension incidence.

Once training commences other factors enter to influence the trainee's inner states. The age of the trainee tends to differentiate responsivity to the teaching and the exercises, as youths and adults of the early 20's take to these much faster. This was born out in our study, for 46% of the respondents were over 30 years of age and aged 25 and over at the time of training, and of these 15% reported episodes of panic in training. This compares with 22% of the 38% under age 25. In sum, perhaps instructors should seriously consider the age distribution of their classes and guide instruction accordingly. Also alertness for signs of tension and panic should be enhanced for the older aged trainees. More repetition for this group in a slower manner of various basic exercises would be helpful. Pacing the training is quite important.

Then how much time and effort might go into panic training per se. We mentioned above self awareness of one's own patterns for detecting tension and panic. Our statistics emphasize that in training there are fertile and frequent opportunities for encountering and managing panic since 61% reported such instances. Also 36% of the 61% reported they witnessed others experiencing panic in training. With such a high incidence one wonders if present training deals adequately with panic in pre-pool didactic material and in current pool methods.

A majority of reporting divers considered their instruction in this area inadequate. The equipment cannot be faulted as such, even though it is initially strange and counter to instinctive patterns of the human animal. Less than a third of our divers reported serious problems with their equipment during training. It seems that the verbal content of instruction didn't get through to the trainees. We established this by questioning them about their security feelings with their instructors as persons and leaders. Repeatedly they affirmed instructors set good examples of confidence, skill and assurance, primarily by actions and comments, but not by the substantive content of their formal material.

A major factor that seems constantly underplayed and not adequately emphasized in training is the open-water training and check out dives. Most of the non-pool or "real" diving experiences took place in lakes and was a part of training for 74% of respondents. The real question is how many is enough and under what conditions should the initial openwater training dives take place. Should it be in water deeper than 30 feet? Should it be by one or two trainees with the instructor? Shouldn't students in the older age bracket have repetitive descents and ascents as part of the first dive in open water? Over three-quarters of our respondents emphatically indicated the high importance and value of such experiences. They also emphasized (62%) the inadequacy of open water training. It is almost akin to the first solo flight in pilot training in establishing patterns of confidence and capability.

If we were to suggest one key emphasis for this phase of training, we would urge the instructor to

reiterate to the student: "You are in training until you truly know your equipment constantly works for you and not you for it underwater." If the trainee finds himself still frequently checking and rechecking before entry and then doing similarly once down, then, for example, he is labouring for his equipment: it is not serving its purpose to enable him to be part of the ocean and to enjoy it fully.

We suggest it might take up to 10 openwater dives before the student truly feels comfortable and free from his tensions. In our sample, 58% had one or no dives pre-certification. And, as Schenck and McAniff<sup>1</sup> point out, 7% of fatalities occur on the first open water dives and 23% on an early one.

We suggest another variable that needs re-emphasis. Where the trainee's diving is being done. Those of us who underwent Caribbean experiences have no real insight experientially to the different and much more stringent conditions of the Pacific Northwest, such as Puget Sound. The different body sensations and encumbrances of the hood, full wet-suit, and thick gloves can lead to a feeling of being constricted and discomforted to the extent of an increase in tension - as if in a big rubber band.<sup>2</sup> These combined with poor visibility, add to the chances for the novice to develop a high level of anxiety. Thus, those who teach in warm water areas need to emphasize retraining with appropriate instructors in areas so different from the original one.

To look further into the experiences related to panic, we examined life-threatening situations our respondents (61%) underwent post-certification. These included being short of air below 60 feet without a buddy nearby, using a faulty pressure gauge, being caught in a strong current, and surface struggles far from the boat or shore. Despite the seriousness of the crisis only 14% reported panic as the major response, mentioning not ditching his tank nor dropping his weight belt nor inflating his vest. With closer questioning we picked up on additional 22%, making it one of three verging on or into panic.

Yet, most of these divers couldn't finger the factors in themselves that might have correlated with their panic response. They could objectively list what they considered the main components or problems connected with panic. Seventy-nine percent thought lack of training or experience after certification played a major role. And exceeding accepted limits, such as dive tables, was next in frequency. Over one half suggested a nervous or hysterical personality played a big role.

Before moving to the next section which deals with subjective aspects of panic and training for it, let me mention that of the divers who had experienced panic:

- 42% failed to drop weight belt
- 31% raced for the surface
- 29% failed to inflate vest
- 29% did not jettison tank
- 22% later found air still in tank
- 22% ripped mask off at the surface
- 10% took mask off underwater
- 14% did not turn to buddy for aid

This group of divers were mainly in the 25 and over age group.

When we try to see what are some of the underlying dynamics, the pushes of behaviour, in divers and panic, we need to examine several basic considerations. Among those most important in training is the role of the instructor. Without question he represents an authority figure to the trainee. Under such circumstances, students tend to identify with him,

while casting him into various types of authority figures that have been most meaning to them in previous years.

Thus, the instructor of scuba, in contrast to an English teacher or shop instructor or tennis pro, has to get through to the student certain attitudes that can mean life or death in time. Calmness, knowledgeableness, assurance, awareness, alertness, and pleasurable-ness: these serve as the models with which almost any personality type of student can identify. The trainee incorporates these notions into his own self-image as a diver.

This unconscious identification process serves as under-pinning to the steps necessary to master the equipment. The student just knows it is possible to dive well since the instructor personifies all of it. He also realizes the instructor carries with him at all times a great deal of book and experiential knowledge, which is integrated into his underwater behaviour. This sort of mental picture serves the apprentice as a model.

Standing in his way are images and fantasies of what and of how he is going to be doing and experiencing. Fears and negative, as well as positive, anticipations come through. The task of training is to transmit both scholarly and practical information to the trainee within the frame of his pre-set self-image as it undergoes change with the program. One suggestion here is that a known method or resource for handling the less conscious aspects is to have the training group break into small (6 or less) member groups for discussion of these concerns.

The instructor can construct the groups or let them form by self-selection. They are told to rap or talk about what they feel about the total training up to that point. He (and his assistants, if available) might float from group to group, being accepting of any negative contents that he might encounter. He can share any personal scuba experiences if appropriate. The small group interaction should help lessen tensions and even bring to light panicky episodes not perhaps known to the instructor to that time. Several of these sessions, spaced throughout the programme should be of high value to all concerned. The instructor can suggest they deal with the tension and anxieties, if present, with each step of the training - especially with ditch and recovery buddy breathing, etc. He can emphasize their openly speaking of self-recognition of early signs of tenseness and how others deal with the same phenomenon. The irritation factor, a feeling that the equipment just isn't correct, can be discussed: how often it really isn't the belts and tubes, but more they are the objects on which the trainee projects his concerns and fears. The instructor can emphasize, as in our study, probably 60% or more of divers do respond to life-threatening episodes with non-panic behaviour. Again, the point is that tough situations are somewhat built into scuba itself, so handling them can be routine also.

He can ask them to practice relaxation exercises in which they learn more about breath control and large muscle mass relaxation. Just to have a specific routine or procedure that works toward control remains as a measure available - such as minutes before entry. Have the group mentally rehearse procedures to handle certain situations: out of air, exhaling to surface, dropping weight belt. If they do this with eyes closed it is better: for, after all, they can't see the buckles anyway in reality.

Among the psychodynamics of people and scuba, one is our difficulty in letting go of things in life- money, spouses, and weight belts. Let me mention some ideas that might be of interest to you, perhaps even to be incorporated in teaching. Man is a nose-breathing animal with the major olfactory functions long lost in evolution.

To restrain the use of the nose in respiration is quite a departure from normal breathing patterns. As a side light, mouth breathing is used frequently in our culture as a sign of retardation or dullness. Thus, to put the nose to rest in respiration - except for mask clearance - takes some retraining.

And, this is the essence of scuba training with equipment: how to make the equipment fit the body image of the individual using it?

Any really effective equipment that we use in a familiar or strange environment should really be an extension of our fingers, our eyes, our functions, such as breathing. The epitome of this seen in the equipment used by experimenters in handling radioactive materials, whereby tiny motors translate finger movements into metal claw motions twenty feet away.

We learn how to make the equipment an extension of what we call our body image. You are familiar with this in driving a car. The beginner clutches the wheel when he drives between two cars. Later on, he has his mental cat's whiskers which are really connected to the fenders, so that he spreads out his body as his mind sees it, and he goes in the middle lane between the two cars with impunity. That is an extension of the body image. One of our difficulties is how to extend and make the scuba equipment part of our body image. It takes a long time to do it, longer than under most circumstances of the equipment that we wear. Compare with the hunting rifle: you point it like your pointing a finger. Not the scuba equipment. In fact, one of the interesting things about the tank is that it is on our backs and presumably that is the most logical place for it. Yet, if you think psychologically about people, we know from experiences of very disturbed patients that the one thing that is most ill-tolerated is any approach from the rear. We have this built into us psychologically, and what do we do in scuba? We put the life-essential part on our backs. We have to reach back in a clumsy way to turn some kind of a J-valve, and that's our life back there, and it's back of us that we are most vulnerable psychologically.

So, in many ways the equipment is quite alien to our images. The older the diver, the longer it takes to get that acclimatization, to get that union of the equipment within himself so that he performs and the pack on his back becomes him, not on alien foreign object.

In sum, one of the major aesthetic aspects of scuba diving is that it is a very focused experience in life. You have a start and you have an end with each dive, and it has definite time restrictions in terms of amounts of air. Where in ordinary life do we have this concentrated experience along with an element of danger to our lives? A dive is an intensely visual experience primarily, initially, and later on, when the trainee becomes at one with his equipment he odds the physical body part of "flying" in the water. The diver truly does his own thing while still being responsible for another person. Diving has a unique set of characteristics that make it so different from ordinary life and this produces the hypnotic effect that keeps people diving.

#### REFERENCES

1. Schenck HV and McAniff JJ. United States Underwater Fatality Statistics 1973. US Dept. Commerce/US Dept. Transportation Report URI-SSR-75-9, 49p. May 1975.
2. Personal communication with Michael Bonsignore, October 22, 1976.

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#### IDLE TALK: MILDEW ON YOUR HEAD-DRESS AND OTHER BELIEFS

In the field of Sport Medicine there are certain shibboleths that date back to pre-historic times, though this ancestry is probably recognised by few because they are accepted as being so self evidently correct that thought as their origins is neglected. One such belief is the need for abstinence from sexual activity before important events, a belief accepted by most participants and their guides and trainers. From the Shaman before the hunt to the Sport Administrator before the Olympics the belief has been handed down unchanged, and largely unquestioned, with those who seek to buck the system being ceremonially drummed out of the privileged group of those eligible to take part. Afterwards, naturally, "to the victor the spoils". Although the rigidity of Official Pronouncements has been greatly reduced in recent years there is probably a groundswell of residual belief in the truth of such folk knowledge, little attenuated by the onslaught of other opinions.

With the increased involvement of women in diving we should be alert to the possibility of inventing Eternal Truths concerning the dangers they, as compared to male divers, will face. There is naturally the obverse of this, the belief that there can be (because nobody can admit to sexual bias nowadays!) no special factors. The most obvious areas of unthinking beliefs will relate to the menses, the susceptibility to decompression sickness, and resistance to cold stress, of the female with her (usually) greater supply of subcutaneous adipose tissue. The correctness of the medical advice we give will be judged by our successors. They will have the invaluable aid of the retrospectoscope, an instrument we cannot program because it is only now that accurate knowledge is being collected about divers, both men and women though especially the latter group. This is in itself a critical comment on the completeness of past approaches to the acquisition of the basic facts relating to man's problems underwater and under pressure. The fault is now being remedied and all are urged to aid this task. It has taken far too long to recognise the variability factor in divers, both between people and within themselves on different occasions. For too long the Tables have been treated as if they were the Laws of the Medes and Persians of ancient days. Nevertheless there are certain general truths that govern all, else no rational behaviour would be possible and every action would be an assay of the unknowable. Careful divers "cover the field" by adding a step to the depth and times of their dives, the famous J-Factor of the Americans.

These thoughts have been prompted by a couple of recent news items, and made timely by the recent papers by Bolton, Bangasser, Bassett and others. A modern authority on Sport Medicine, Dr Ken Fitch (Senior Medical Officer - Australian Olympic team), has been quoted recently as saying that there is a greater risk of a fatal heart attack from sex, particularly extra-