



THIS IS A SUMMARY DRAFT MANUSCRIPT

The Making of a Motorsports Champion

How to Build the Champion's Pyramid

By Derek Daly

Introduction

The Pursuit of Excellence

This is a book about a subject that is very close to my heart, the development of a champion race car driver. I spent most of my adult life immersed in the colorful, glamorous and exciting world of Formula One, Indy Cars and World Sports cars, and all this came despite my humble beginnings of life as the son of a middle class grocery store owner in Dublin, Ireland.

I won many championships along the way in the lower Formulae however, I never became a champion at the highest levels (ranked 10th in the Formula One World Championship in 1980), nor did I win an Indy Car race (3rd place in Milwaukee being the best) or a Grand Prix (although I came very close in Monaco in 1982 when I led on the second last lap only to have the gearbox fail).

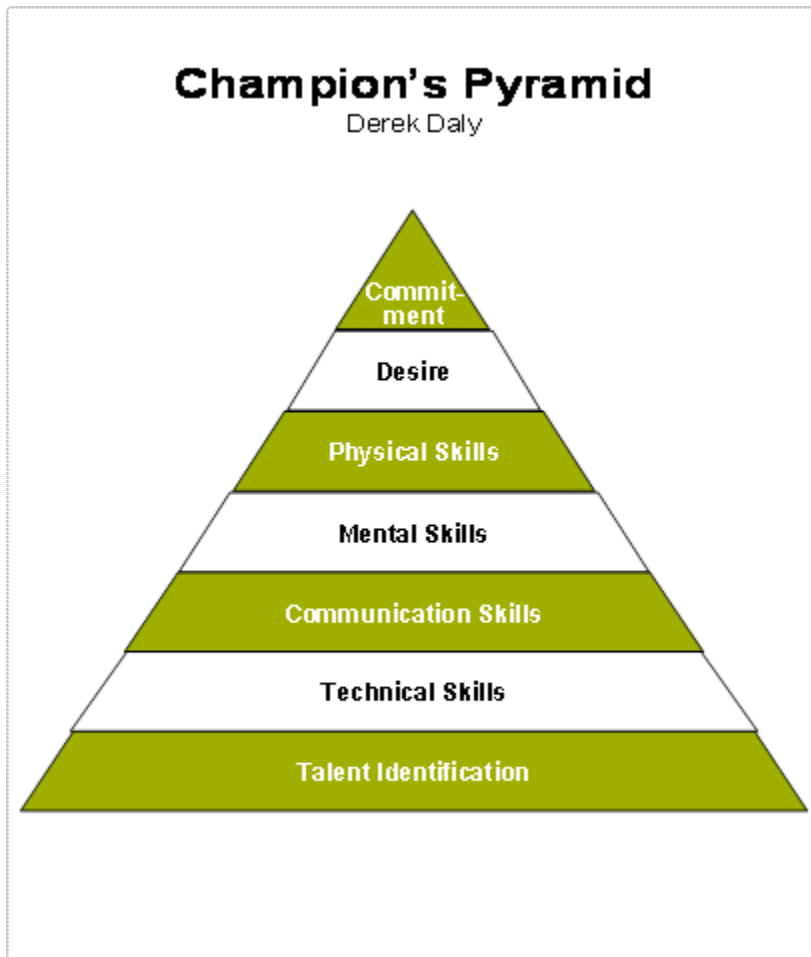
While I competed across the globe in Formula One from 1978 to 1982, I began to struggle to maintain the form that had been so natural for me in the lower formulae. I began to wonder why, and that led me to years of fascinating studies as to why some drivers grew to become successful champions and what the difference really was between good and great. Many will tell you to be successful in anything you have to have killer instincts. Well, this book will show you that becoming a legendary motorsports champion requires a whole lot more.

I've personally made all (or most of) the classic mistakes. I derailed my career many times and had to come back from self-destruction several times. I experienced what I grew to know as "the genesis of self sabotage." That experience, along with a career as a broadcaster spent seeing the best of the best on track week in and week out, gives me a unique perspective on what it takes to succeed in this demanding career.

Chapter One

The Champions Pyramid

The Champions Pyramid, which has equal length sides, represents the balance of qualities that a champion driver needs to possess in order to succeed. The enclosed illustration is a simple pictorial description of what a champion is aiming to build. This book will explain, step by step, why each element is necessary and how to develop those elements



Research

In 1996, my former Nissan GTP team mate, Bob Earl and I, created one of the most comprehensive driver development programs in America. It was called the Team Green Academy and was created on behalf of Brown & Williamson (under the KOOL cigarette brand), then a major CART Champ Car sponsor..... That program gave me direct access to the physical, emotional and mental make up of almost 50 of the youngest potential stars of American motorsports. It was an eye opener and a fascinating look into what made some drivers tick . . . and what derailed them.....

Stand Out Champions

From all the drivers that I have seen in the modern era, four still stand out as being very special; Formula One World Champion, -Indy car Champion and Indy 500 winner Mario Andretti, four-time world champion Ayrton Senna from Brazil, four-time world champion Alain Prost from France, and seven-time world champion Michael Schumacher from Germany. I make no apologies for choosing Formula 1 drivers because I believe that Formula 1 is the most competitive, intense and challenging motorsport on the planet.

These drivers were very different but all became a part of history because of the way they applied themselves to the task of motor racing. Ayrton was emotionally driven, Michael is mentally driven, Alain was mission driven and Mario was commitment driven..

.....British journalist Mark Hughes offered this insightful comparison of Senna, Prost and Schumacher: "The impression is that the Ferrari [Schumacher's] cockpit is a rather colder, quieter place than was Senna's.

"Alain Prost was known as "The Professor." He was meticulous in his preparation and his execution during a race was flawless. His pre-race planning was second to none and his emotional and mental control was admired at all times. Both Senna and Schumacher were known for emotional (and irrational) outbursts in the car. Prost never did such a thing. Senna was flamboyant, Schumacher was a machine and Prost was a calculator."

I believe that the greatest example of a driver developing the complete package necessary to become a champion has to be Michael Schumacher. He is the greatest driver of the modern era. He could well be the greatest driver of all time. Michael went through several critical.....

The Right Environment

It is my belief that to extract the very best from any athlete (or child), you have to surround them with the type of environment that helps them flourish.

If you ever questioned why the right environment is important for drivers, consider what Renault Executive Director of Engineering Pat Symonds said to British Journalist Mark Hughes in November 2004 about British Formula One Star Jensen Button. Jensen had a trying time at Renault and despite his talents, rewards were not forthcoming.

Button's driving style is beautifully stylish and very quick. His steering inputs are minimal and he appears to rely less on braking to aid the direction change. When he was struggling at Renault, the technical core of the team was unsympathetic to the problems he was having in fine tuning the car to his natural style.

Symonds later said "I don't think we saw what we had. Everything we've seen subsequently suggests we failed to extract his potential."

Racing DNA

Every person on this planet is born with strengths and weaknesses. I don't believe that a race car driver is ever born with all the strengths he needs to become a great champion. Every driver possesses a unique make up. I call this make up Racing DNA (R-DNA).....

.....How you perform as a driver is also a direct result of decisions you make. The level a driver achieves will be directionally proportional to the development of all seven areas of the Champions Pyramid.

Throughout this book I will break down each of these profiles and show you through example what separates the good from the great.

What is Driver Development?

It really is amazing to me that with so much at stake in professional motorsports that there has never really been a structured driver development program in America or Europe. I have seen many what I would call *driver assistance* programs that attempt to masquerade as development programs, but never the real thing.....

..... The key to real driver development is how you position yourself to get the very best from yourself and therefore reap the rewards and the financial benefits. No driver could ever complain if during his career, he was able to become the very best he could be. To become the very best you can be in motorsports is NOT a black art. To develop a driver to be the best he can be is NOT a black art either. It is a clear path that must be understood and one that has

always provided many questions. This book is designed to give you those answers and it is designed to be a foundation for driver development unlike anything motorsports has seen before.

Early Learning days in Formula One

When I drove for the March Formula One team in 1981, March founder/designer and my personal engineer Robin Herd, regularly made the statement that, "There is absolutely no magic to being successful in motorsports. You just need a competitive driver, competitive car and enough money in the budget."

..... The budget is a critical part of the equation;.....

..... The car is an ever-changing technical package

..... In my opinion, the driver is by far the most complex part of the puzzle, and by far the most important.....

Relationships

One of the first things you need to know and fully understand is that motor racing is very much a relationship business. The first impressions you create can be long lasting. Your traits, strengths and weaknesses will become apparent to all the people who matter. All the teams talk to each other; your driving talents will be the subject of discussion with any team owner/manager prior to hiring you.....

Background

I was one of the very fortunate people who got to live my dream. I came from a working class family in Dublin, Ireland. My father made his living first as a meat sales man and eventually as the owner of a corner grocery store. I grew up in an average neighborhood where we played soccer and amused ourselves with some of the simpler things of life.....

In 1965, when I was twelve years of age, I saw my first race on the streets of Dunboyne, a small village on the outskirts of Dublin.....

..... A driver in the Formula Libre event that day was Mo Nunn, who thirteen years later was to give me my Formula One debut at Brands Hatch, England in his Ensign MN08 DFV Formula One car. Although I have photos of Mo that day, I have to admit that he was not one of the standouts, and I have no memory of his participation.....

My road racing career began in 1974 at the wheel of a used Lotus 61 Formula Ford, purchased from Jordan Grand Prix team owner Eddie Jordan.....

Australian Iron Ore Laborer

At the end of that season I had not repaid the bank loan and needed more money to upgrade my race equipment for the 1975 season. The only options I was aware of to make big money, fast, during the winter, was either to work in the oil fields of Alaska or the iron ore mines of Australia. The Alaskan oil fields required special warm clothing that cost almost \$1000 and that expense would be taken from my pay packet every month until paid back. Australia required old t-shirts and shorts so, five days after I found out about the opportunity, I found myself in Perth, Australia committing to be a laborer in the iron ore mines of northwest Australia.....

In 1977 the rocket ship really started to take off. Armed with financial backing from Irish businessman Derek McMahon, better known as Big D, and a Chevron B38 Toyota Formula Three car,.....

.....Just before the start, Irishman Sid Taylor (the same Sid Taylor who I had gone to see race in Ireland in 1965), who handled Hong Kong businessman Teddy Yip's Formula One involvement, walked up to my mentor Big D, and told him that if I won the race he would give me a Formula One test at the end of the season.....

..... I had never seen the car before, never saw the track until the first lap I did in practice and after the first qualifying session, McLaren Chairman Ron Dennis (he owned a Formula Two team at the time called Project Four) walked into our pit in disbelief at my lap time and said, "If Daly did they lap time, I'll eat my hat.".....

Formula Ford to Formula One in 13 months

In December 1977, just as he had promised, Sid Taylor gave me a test in a brand new Theodore Formula One car at Goodwood, which is one of the most famous old circuits in England. The car had just been designed and built by Ron Tauranac, an Australian designer and owner of Ralt Racing Cars. The F1 project had been financed by Hong Kong businessman Teddy Yip, who I would drive for the following year. Yip was one of the principal backers of Mo Nunn's, Team Ensign.

I had gone from Formula Ford to Formula One in 13 short months. The fastest I was aware of at that time was Emerson Fittipaldi who accomplished the feat in 18 months.

America, the Land of Curiosity

At the end of the 1982 Formula One season, my boss Frank Williams phoned to let me know that Jacques Lafitte would be replacing me in the Williams FW08C for the upcoming season. I didn't blame him one bit as I knew full well that I had not performed well enough to keep

my seat. Soon after that I left for America to start the next phase of my career amongst the high-speed ovals of American Indy Car racing.

..... I made my Indianapolis 500 debut in 1983 in September 1984 and was almost killed in a devastating crash at the Michigan International Speedway. I somehow survived the hardest impact that anyone had survived up to that time (an approximately 210-mph impact).

Reality Check

The reality of it was that my near fatal accident put me on a learning path that I hope can positively influence others. It was only years after I retired from competition I realized that drivers have strengths and more importantly weaknesses. I had not recognized my own personal weaknesses while I was driving and therefore I had not worked at turning those weaknesses into strengths. I believe those personal experiences are a valuable asset that I can now pass on to the next generation of race drivers and I will get just as much satisfaction from seeing them succeed.....

While in the television booth, I closely observed great champions such as Michael Schumacher, Ayrton Senna, Alain Prost, Michael and Mario Andretti, Nelson Piquet, Gil DeFerran, Alex Zanardi, Juan Montoya, Kimi Raikkonen, Tony Stewart, Jeff Gordon, Dale Earnhardt, and Fernando Alonso. Although each of them have strengths and weaknesses, they have all consistently shown that they have the abilities not only to drive a car fast but also to create and then manage their respective environments that can potentially put them in a position to consistently be successful. Note that I say *potentially* put them in a position to consistently successful because as you go through this book you will realize that some of them “almost” get to the top and some of them might never get there.

Throughout this book I will give examples of current and past star drivers in an effort to clearly show the differences between drivers who have all the key elements and drivers who do not possess all the elements. As often as I can, I will use real life scenarios in an effort to paint a clear picture of the often-subtle differences between having the skills and “almost” having them. I will use documentation from respected journalists who follow every step of these drivers and you will probably see yourself in some of the examples. Remember, you can still make it to the top without all the elements fully developed, but you will NOT have the staying power that you might have. With all the ingredients fully developed, you will sustain your position at the top.

Becoming a champion is not a game of chance, but it can be a game of choice. If you develop the Champions Pyramid as much as you possibly can, you might not become a world champion, but you will definitely become the very best you can be. What more can you ask for?

Chapter Two

Talent Identification

******First layer of the Champions Pyramid**

.....I believe that all potential star racing drivers are born with an inherent ability to understand the dynamics of a vehicle at high speed. He has an ability to feel through his backside what a car will do before it does it (which is vital at a place like Indianapolis). He has a message delivery system from the butt cheeks to the brain and back to the arms/legs that is permanently connected. He just *knows* that when a car slides, you steer into the slide to regain control. You can't teach this instinctive reaction. It's just like when something is about to hit you. Your natural instinct causes you to put your hands up to protect yourself. This is instinctive, nobody taught you this.

At this level, the important question is not whether you have talent, but rather what *type* of driving talent were you born with? Do you possess a predominantly "instinct-reflex" talent, is it "feel" talent or is it a combination of both?

A driver who has instinct-reflex talent can drive the wheels off anything he gets into. No matter what the track conditions or car set-up is like, this driver will extract the maximum speed possible out of the car.....

Instinct-Reflex Driver

Instinct-reflex drivers have nerve endings that are on fire and every fiber of their bodies are fully charged and ready to be unleashed as soon as they put a helmet on. Early in their careers an instinct-reflex driver becomes popular because he is usually a no-nonsense driver that just gets the job done. He is uncluttered with few distractions and only thinks about going fast. Engineering the car to go faster is not a high priority for him because that is not in his character. These drivers are often ego-driven and believe that regardless of the car set-up, they are invincible. In the lower formulae they can get away with this because going fast doesn't require a complicated set up. Races tend to be short, tires tend to be spec, and therefore a flat-out sprint type of driver can do quite well. As long as a team can provide the driver with a reasonable set up, he will happily do the rest.

Mika Hakkinen was fortunate to be a McLaren driver in a high-tech era where engineers and computers could provide a set up that allowed him to use his instinct-reflex style. The cars of the late seventies or early eighties required a lot more accurate technical feedback from the driver, and I don't believe Hakkinen would have been as successful in the 1970s Formula One era.

Many think that one of Jean Alesi's biggest mistakes in his career was moving to Ferrari when he could have gone to Williams. Ferrari lured him through the emotional appeal, but they did not provide him with the cars good enough to take advantage of his phenomenal instinct-reflex style.....

.....The instinct-reflex driver can also frustrate a team because no matter how hard he drives, he might be just a little off the pace, because he never thinks hard enough about the car set up, and relies too much on other people to control his destiny,

Feel Talent

The drivers who are born with feel talent can travel a similar path in their formative years but tend to have a bit more control of their destiny later in their career because they have the ability to guide the team technically. A good feel talent driver can drive a race car and absorb the message it is giving him and accurately describe it to the engineers in enough detail that the engineer can almost feel as if he had driven the car himself. If you listen to the radio talk between a driver and engineer, the good feel talent drivers clearly describe what the car is doing. They will also be pretty sure the direction to take with the set up.....

.....Bear in mind that the feel talent driver's quest for the perfect set up can get in the way of his ability to just get in the car and drive it hard. The technical (feel) driver has to walk the fine line between knowing what he needs in the car, but being fully prepared to give his all, even if the car is not perfect. Practice sessions are usually short on race weekends, so time to test is often limited.....

.....one engineer might be enough Gil DeFerran, Alex Zanardi, or Sebastian Bourdais because they are good at sorting out the right technical set up of the race car. Mika Hakkinen, Jean Alesi and Juan Montoya need two or three engineers to make up for their lack of ability to provide accurate technical feedback. All of these drivers have won some of the world's premiere races and championships. They did so when surrounded by the right elements. However, the Instinct-Reflex driver runs the risk of wearing out his welcome with a team if the team cannot find another way (other than his feedback) to develop the car.

The Magical Combination of both

Drivers who possess both instinct-reflex and feel talent are the most likely candidates to become champions who have long careers at the very top of their profession. This list of drivers tends to be a little shorter.....

.....The masses might say that Michael wins so many races because he has the best car. That is absolutely right. The car he drives are the best because he is one of the most technically accurate feel drivers ever in Formula One.....

When Damon Hill left, so did the technical direction of the team. Williams has not had a really fast car since. Damon Hill was not known for the flat out banzi lap in qualifying so I would put him in the feel talent category.

Mario Andretti had both. He was regarded as a great technical driver that gave accurate feedback and he also had the ability to drive on the ragged edge when it came time to really put it all on the line.

Drivers with the magical combination of feel and instinct-reflex talent tend to have more consistent performances. Using that measuring stick, you can see that Jeff Gordon, Dale Earnhardt Senior ,Paul Tracy, Sebastian Bourdais, Michael Schumacher possess this combination. Drivers who have flashy performances like Dale Earnhardt Junior, Jarno Trulli, Giancarlo Fisicella and Bruno Junquera tend to not possess the combination.

Chapter Three

Technical Skills

“It takes just as much time to bolt the wrong set up on to a racecar, as it does to bolt on the right one.”

2nd level of the Champions Pyramid inserted here.

You do not have to be a good technical driver to drive a race car fast. An example of this is a pure instinct-reflex driver who can set competitive lap times and even win a race here and there with little regard to race car set-up. That’s not the case, however, if you want to consistently win championships.

Why? Race cars have limits. In racing, the objective is to extract the car’s maximum speed as often as possible. The key to sustained speed is understanding which changes to the car’s setup will make it go *faster*.....

Style Differences

Champ Car Champion, Paul Tracy has an aggressive style of driving. He is able to perform at his very best when he has a lot of front-end grip.....

Getting Technically Lost

An example of good drivers not being able to overcome a poor technical set up happened in the Japanese 2002 Champ car race in Motegi with the Newman Haas team. With two of the best drivers in the series, Brazilians Chistiano DaMatta and Christian Fittipaldi, their cars were so

loose that 20 laps into the race, both Christiana and Christian looked like amateurs.....

The Right Way

..... Mario Andretti was a great technical driver. There are some who believe that his career was prolonged because he was so good technically. He could engineer the car to be faster than most and therefore the bravery of the younger generation was beaten by the engineering genius of experience. There is no doubt that when he won the Formula 1 World Championship, he was in a car that was faster than everything else on the grid. The accurate feedback he provided his engineers was a large part of the reason why the car was faster. Whether Mario was in a Formula 1 car, an Indy car, a sports car or a stock car, he could win. This success trait is a hallmark of a good technical driver.....

Technical Savvy is not a “Born With” Trait

None of us were born as good technical drivers with naturally good feedback; this is a learned trait. Some learn it quickly, some never learn it. Being a good technical driver requires a considerable amount of discipline because, going fast is a driver’s natural instinct, yet putting your desire to go fast aside and driving just below the limit with enough mental capacity resources left to feel the car requires a different mindset.....

Honesty

Always be brutally honest with the team. I can’t stress this enough. If you can’t feel a change, then say you can’t feel it. Just because they made a change does not mean you will feel it. The worst thing a driver can do is start spewing technical information, fueled by your desire to sound knowledgeable,

Technical R-DNA’s

Scott Dixon is an example of a very young driver who has achieved significant success. He currently holds the record for the youngest-ever winner of a round of the CART Champ Car Series. Dixon is still developing his technical abilities but even at this stage of his career, his reputation of being good technically is beginning to spread. Ganassi racing’s team manager Mike Hull is very open telling people that Scott knows what the car is doing and more importantly, what he needs it to do to suit him at a particular track. He is able to accurately describe these scenarios, which gives his engineers a solid footing when they tune the car.....

Non Technical R-DNA

One of the more fascinating stars is current McLaren driver Juan Montoya. He burst on the Formula One scene after winning the Indy 500 and the CART Champ Car Championship, and was initially hailed as the next Michael Schumacher. Unless Montoya quickly learns more about the technical side of a race car, however, he will never be as good as Michael Schumacher. Sure he will win races, but his technical weakness is becoming more and more apparent each season and he is beginning to feel the pressure of a top line Grand Prix team who needs more technical direction from him.

Juan Montoya's deficiency in the technical department is obvious to the people who know what to look for, yet Juan himself will deny the suggestion and will attempt to place the blame for lack of performance elsewhere.

"Juan is one of the most talented drivers I have ever seen, his car control is brilliant and so is his overtaking," Former Ferrari driver and Manager of the BMW Formula One program, Gerhard Berger enthuses. "There is nothing to say about this area, he can do the same as Michael on the driving side. I think it's a question of how he can get the maximum out of his car's set-up. That's where he is lacking a bit of experience and has to work harder. It's the only area I can think of where he could improve... maybe he can't."

How To Become a Better Technical Driver

"Going faster is not about driving better, it's about having a better car"

Now that you know what you need to do, you need to learn how to do it. The key question is: are you prepared to make the commitment necessary to do whatever it takes to become a better technical driver?

Chapter Four **Communications**

"There is no such thing as reality, only perception."

During the Team Green Academy driver development program in 1996/97 we put many of the drivers through a basic communications course. None of the drivers had ever attended a course like this before nor had they ever considered attending such a course.

Almost to a man, each young driver said, "If only I had known this information last season." Teams are complex organizations, and communication problems often lead to friction.

Knowing how to communicate effectively can relieve those stresses and keep everyone focused on winning races.....

There is no such thing as reality . . . only perception

The first time I heard the phrase “There is no such thing as reality, only perception,” I was perplexed. Then I thought hard about it and began to realize that maybe it means that what is truth to one is different than what is truth to another. A more accurate use of this phrase might be that there is no such thing as reality . . . just your personal perception of reality. Your perspective determines your emotional response.....

Temperaments and Personalities

Thanks to current behavioral science, we know that people are different from each other in every possible way. They are born with different DNA codes. They have a wide variety of backgrounds, attitudes, and expectations. All of these variables create different styles of communication which I believe is paramount for a driver to understand when dealing with his team and dealing with himself.

Understanding these differences and likenesses will give a driver an added benefit because so much of his success in life hinges upon d his ability to communicate effectively.....

.....Consider this example: what if you are working with what I call a Lap Top race engineer and his communication style required you to sit down for an hour after each session and accurately discuss, in minute detail, every aspect of the chassis, engine, gearbox and racetrack. This engineer would probably also want you to pour over data graphs in fine detail in order to provide him with as much information as possible. It is his job then to take all that information and have it make sense and hopefully use it to help the car go faster. Now if you simply tell him the car is loose and you’re off to play golf, the chances are you will not have connected with him nor will you have satisfied his requirements. This would be an ineffective way to communicate with your engineer.

On the other hand, if your race engineer is what I call a “trench” engineer, and all he needs to know is the basics, is the car understeering (pushing) or is it oversteering (loose), and you want to sit down for an hour with him and explain every aspect in minute detail, and ask him to spend hours studying data graphs....but that’s not how he operates effectively, again you will not have connected with him nor satisfied his requirements.

What if you had the skills to be able to “read” what type of person you might be dealing with? What if you knew the temperaments of all the people on your team and you were able to

walk in through their particular door of communications? That would give you a head start to having effective communications with the people who matter on your teams.....

The four basic temperaments

..... Three-time Formula One World Champion Ayrton Senna was a great communicator and his most effective way of communicating with his team was through touch and verbal affirmation. Every morning upon arrival at the racetrack he would personally shake hands with each of his mechanics and every evening before he left he would do the same thing. It was his simple and effective way of saying thank you. Every mechanic loved to get the handshake because to them it was an affirmation of friendship and of respect for what they were doing.

In 1993, I covered Formula One for ESPN and at the opening race of the season in South Africa, I found myself standing outside the McLaren pit waiting to do an interview with Michael Andretti. When Michael's teammate Ayrton Senna walked through the back door, he recognized me and walked around both of the race cars, zigzagged past half a dozen mechanics, and came straight over to me with his hand out stretched to introduce himself. I had never met Senna before but like everyone else in motorsports I had admired him. He had become familiar with me through his knowledge of the history of Formula One and through his interest in following Indy car racing on television, where I was the commentator.

I was completely floored that a multiple-time world champion, who usually has to hide from fans and admirers, would even bother to take the time to introduce himself. That simple gesture of communication had a profound effect upon me.....

So now lets deal with you. Which category do you fit in? What type of temperament/personality would be your dominant and what would be your secondary. trait? Bear in mind a personality trait is like your blood type, you have it for life and you can't change it. What you can change however is how you present your temperament/personality to people.....

.....Nigel Mansell is a good example of a choleric/melancholy (he was definitely Not a sanguine or flagmatic). He is aggressive and in your face. With Mansell, it was his way or the highway. Mansell did not make a lot of friends and an astute team manager would have realized that Mansell needed a strong-minded engineer who was not easily intimidated. If Mansell respects you he will follow you. Mansell did not need any emotional support from the team to perform well. In fact, Mansell thrived in hostile environments where he reveled in proving how good he was. With Mansell the best way to communicate with him was to be direct, be clear and don't get too personal (don't like fluff).....

A Champions way to Communicate

Michael Schumacher is a wonderful communicator. He is not necessarily a warm personality but his enormous success endears him to his hard-working teammates. He is particularly gifted at communicating with his engineers about what he needs in the racing car to make him go faster. History has shown that he is usually right in the direction he sends the team.

His “thank you” language is in the form of gifts for his mechanics. Regularly, he presents his mechanics and their families with gifts.....

.....As you ponder about what type of personality you have and how you believe you interact with other people, I would give a guideline that says rather than look to build friendships with people look to build respect. Respecting others is a great foundation for them respecting you. Respect in turn builds your friendships...and friends help friends.

Chapter Five ***Mental Skills***

“Never allow circumstances to dictate your behavior”

Some people would argue that strong mental skills might be the most critical part of a race car driver’s overall package. Without complete emotional and mental control, it is doubtful you can consistently withstand the enormous pressures at the top of the motor sports mountain and consequently you cannot consistently produce your peak performance.

Mental toughness is easy to measure. You can get an indication as to the mental “make up” of a person at a very early age. Children who are four or five years old, who display a strong sense of individualism and are independent thinkers, usually carry that trait throughout their lives. Children, who are emotionally fragile early in their lives can also carry this trait into adulthood.....

Other Stars

In January 2000, *Autosport* magazine wrote this about a new star on the Formula 1 horizon, England’s Jensen Button.

“Today Jensen Button has the quality and the talent to do the job in F1 and be a great driver. The problem now is that the road is still very long until he is in a position to win the world championship. What will make the difference will be his determination and motivation at the highest level. F1 is very difficult for a young person—the money, the business, the people, everything. You cannot say he is going to be a future world champion or not. That depends on his head.”

I always find it fascinating to compare the mental make up of great drivers. Kimi Raikkonen and Juan Montoya are regularly compared. In November 2004, Nigel Roebuck did an accurate comparison of the two:

“Raikkonen rarely betrays more than a withering glance of emotion, doesn’t let in anything that’s not relevant to the job in hand. Montoya, fiery and extrovert, wears his heart on his sleeve and the styles of their racing reflect these traits. Kimi’s performances are relentless; Juan Pablo’s are a heady mix of adrenaline and opportunism. Raikkonen retains his icy calm every second he’s in the car, Montoya uses emotion to drive his performances. Each trait has its up and down sides.”

“Raikkonen has the dimmer switch on the outside world turned way down and there are no distractions.

“Raikkonen’s personality lends itself better to focus, Montoya’s is perfect for the element of ambush that wins him races.

“Both drivers are generally immune to pressure from behind, more so than Michael Schumacher. No quarter is given though each is scrupulously fair in battle, with very fine judgment.

“Montoya will be good at the well-timed wind-up. Just as Kimi will be good in not even acknowledging it.

Mental pressure.....Do you feel it or apply it

Motor racing makes very high demands on us mentally. We are expected to perform in a dangerous sport under enormous pressure with the eyes of the world firmly focused on us. No matter how critical of us our peers are or how caustic the media is, you must not let your guard down for several reasons. Firstly, mistakes can kill you in a race car and secondly, at all times, there will be any number of drivers ready and waiting to step into our seat at the slightest opportunity. What other sport do you know where a driver can be killed, and there would be a line of willing drivers ready to step into his seat. Motorsport is a colorful, glamorous, savage sport that can be so brutal. It is your job to always rise above this.

There will always be pressure when competing at a world class level in anything but if you allow the pressure to disrupt your routine and decision making; you are a driver that feels the pressure. If you use the situations to your advantage and destabilize your opposition you “apply pressure.” Try to make sure you are the applier.

Mental Power Generation

In order to understand your capabilities, you need to maximize the return on your mental capacity. Picture your mental capacity as being like a power generator. If your generator has a

capacity of 20,000 watts, and during a hot and difficult race, you start to need 25,000 watts, the “lights” that are plugged in and powered will start to dim and the capacity needed to power any new requirements, is just not there. This will lead to the fuse blowing and everything will be shut down. When this happens, a race car is probably flying off the road backwards.....

Mental Toughness

Formula One World Champion, Nigel Mansell is a superb example of a driver with so much belief in himself that he needed very little emotional support from a team. Throughout his racing career no matter what happened, he was able to brush it off and move on to the next level. Nigel was my teammate in European Formula 2 Championship in Donington Park, England in 1978. He failed to even qualify for the race because his car was sub-par. He simply absorbed this blow to his ego and moved on.

Few people believed that Nigel would ever make it to the big time. He proved over and over again, however, that he just might be mentally the toughest driver I have ever known.

When he drove for my old team, Williams Grand Prix, he blossomed and didn't care what they thought of his quirky behavior. All he wanted from them was the best car on the grid, which they gave him, and he went on to become world champion with a spectacular season in 1992. He did all this in a team that is emotionally cold and who are *not* known for emotionally supporting their driver.

Emotionally Vulnerable

Other talented Formula One drivers did not flourish in the Williams team's emotionally cold atmosphere. German Formula One driver Heinz Harald Frentzen has always needed far more emotional support than Nigel Mansell. During his time at Williams his true talent became buried under emotional distractions and pressures and the team doubting his abilities,.....

.....Do you know what type of emotional support you like? What type of emotional environment did you thrive in as a child? What were your emotional and mental hot buttons? Were you a family supported type of individual? Did you perform well when your family was there to support you? Did you perform better when you were away from your immediate family? This type of question will lead you in the direction of what type of mental environment you will thrive in.

.....Respected journalist Mark Hughes also had an interesting take on mental strength.

Hughes believed that although all competitive sports require mental strength, motorsports is at the extreme end of the scale. It's more complex than most sports and more dangerous. As well as the concern about achieving your own maximum competitive performance, there's the

whole complex matrix of the car to consider, all against a subconscious backdrop of self-preservation.

“Uncertainty is the enemy of getting in the zone. That and emotion, but emotion's a strange one, a dangerous force in that it can be used to tease out depths of performance, but can just as easily turn on you.

"I've always felt that the way for someone to beat Michael would be to create doubt in his mind."

..... Senna had the persona of a warrior. He seemed to thrive in a war zone. Senna, in fact, was one of the very few who took that dangerous partner emotion and danced with it. Tragically, it probably killed him. Just as it did Gilles Villeneuve.....

Mario Andretti—the 1978 Formula One World Champion—is a man who has seen it all. His words are well respected. He was once quoted as saying that he believed that, “Not too many people know how to win. A lot of people know how to go fast and they’ll be a factor, but knowing how to win is knowing how to control your emotions. I see drivers who are quick, they’ll be up front for a while, but you know they’ll never win. They’ll make a mistake, they’ll do something that will cause them not to be there in the end. They just don’t have the capacity, the capability, to have that mental strength.”

How to Develop the Mental Strength of a Champion

Before we get into this subject, please don’t fear the admission that you might need help in this area. If you do, believe me, the quicker you admit that you could benefit from strengthening your mental muscle, the quicker you will become more effective in a race car.

What if mental strength is a weakness that needs to be boosted in a driver, just like it was with me? Where would you go, what might you do? The first thing to do is to be quietly honest with yourself, and admit that it is an area that you would like to strengthen. Then I would seek help from a professional.

Virtually all high-performance people acknowledge that 80 percent of the game is mental, whether we are talking about a professional golfer, an Olympic athlete, a SWAT team specialist, a company CEO, or a top salesman! They recognize that it is not their physical prowess or their knowledge that ensures success in the competitive world in which they live and work, but rather that their personal success is most influenced by the mental skills that they are able to bring to bear on the tasks that they undertake on a day-to-day basis, and during major events in their lives (the big tournament, the big competition, the big meeting, the big deal, etc.).

Habitual Behaviour Patterns

We behave in fairly predictable, repeatable ways. The way we communicate, organize, delegate, and make decisions are based on patterns of behavior. For example the complex skill of driving a race car is made up of observation, planning, decision making, and physical control

skills, which when assembled together enable you to drive at high speed safely while thinking about many other things at the same time—it is a learned pattern of automatic or.....

Chapter Six

Physical Fitness

Level 5 of the pyramid drawing inserted here

Although races early in a career are relatively short events, they still require a certain level of physical fitness, which provides a foundation for the future when you might be driving heavy cars for two or three hours or for what might be expected of you during an endurance race like the Le Mans 24 hours.

Many people just see a driver behind the wheel and have no idea that a considerable physical effort must be put forth to achieve optimum performance from the vehicle. I have personally experienced everything physically in a race car. I have finished Grand Prix races fresh and alert and I have also collapsed from exhaustion. I have dealt with all sorts of pain; particularly cramps, and during a particularly difficult time in my career when I suffered physical difficulties on a regular basis, I had reason to question my own training routine. Through it all I learned the basics about physical readiness to drive race cars.

Physical fitness and how to achieve it is very unique to each individual. Each body's metabolism works in a very unique way.....

..... In 1984, the Hovik Medical Group from San Diego monitored my heart beat during the Long Beach Grand Prix. Over the course of the two hours I averaged 178 beats per minute with a high of 199 BPM. When the doctors viewed the results they were shocked. I had the highest sustained hear beat of any athlete they had ever measured during competition. This was during a time when race car drivers were not really regarded as true athletes because driving cars (particularly on television) looks somewhat easy.....

Physical control through the Mind

During the 1988 Le Mans 24-hour race, I was driving for the biggest team there, Jaguar. I was part of a five-car assault and a multi million-dollar attack to try to win the most prestigious endurance race in the world. Our car finished fourth with our sister car winning. During the race, I have vivid memories of having severe cramps in my legs and feet at 3:00am in the morning as I stood in the pit lane with my seat back in hand ready to get in to do a two-hour double stint. That was when I learned that my state of mind could affect me.....

Reality of the Gym

Let me tell you the truth about working out to get ready to drive a race car. I don't care how much training you do in the gym, and what level of personal trainer you have, you will not become totally race fit without being in the race car actually experiencing the activity. You simply cannot replicate the g-forces exerted upon the body while at speed no matter what type of exercise you do. After a long layoff, or when driving a bigger car for the first time, your forearms, wrists and neck will still ache until those body parts raise their tolerance as you get more mileage in that type of car. You can however use the gym to make your body strong enough to be able to adapt more quickly to the rigors of driving a racecar.

Reading your Body

The lesson here is that tuning for optimum physical fitness is very much like tuning for optimum performance from the kart or racecar. Just as the car will tell you what it wants or needs, your body will do exactly the same.....

Specialized Training

You can go to any reputable gym in any country and find a very good trainer who will put you in the best physical shape of your life. However, because motorsports makes unusual physical demands on the body, if you are aiming for the top, you would be better off choosing a trainer who has a more specialized approach to training a race car driver.

One such person is Jim Leo, owner of PitFit Training in Indianapolis. Jim has a wealth of knowledge and experience with race car drivers and if I was to set myself a specific target, I would like to have someone beside me who could "aim" me in the right direction

I have included a section penned by Jim himself that accurately sets a driver on the right path as he prepares to endure the physical riggers of racing at the high speeds.

A Fitness Program for Racers

By Jim Leo

Preseason Fitness Preparation

For many drivers, off-season fitness consists of tearing down your engine or watching *American Idol* on television.. The question you must ask yourself is whether or not you want to make an impact on your racing season before it even begins.

Chapter Seven

Desire & Commitment

“Desire is a heart matter...a being.”

The final piece of building *The Champions Pyramid* is desire and commitment. Everything discussed so far is teachable, learnable or coachable, but desire and commitment are not, this comes from the heart. You can observe these qualities in a driver, however.

Desire is a bit like a driver's blood type except you cannot measure it with a piece of equipment. Desire is a measurement of the driver's heart and soul. The drive within the heart is what produces the type of desire needed to chase a motorsports dream (or any dream for that matter). A true champion needs the desire to chase the dream through the most difficult of times, the desire to want to win at all costs, the desire to want to do be the best you can be at all times.

Although desire is not measurable with equipment, it is apparent in the driver's behavior.....

.....I once asked Mario Andretti what he believed was the most important thing a young driver needed when he set out to make it to the top. Was it talent, bravery, money, technical ability or none of the above? Mario looked me in the eye and uttered just one word: *desire*.....

European Mentality

I grew up with the European road racing mentality and lived through many struggles before finally making it to Formula One. This experience has given me an intimate understanding of the desire required to make it at the top level of motorsports. I also have racing experience on both sides of the Atlantic Ocean, and understand how the American definition of desire differs from the European understanding of that word.....

Never forget, nobody owes you anything. Life in general owes you nothing. You get what you deserve and you reach heights using steps on the ladder that you yourself create.

.....Consider this: Are you prepared to give up your comforts and social life to dedicate every waking hour to the betterment of your career? Are you prepared to work long hours with no thanks to help your career? Would you or your family be prepared to make alternate arrangements for your schooling if you had to spend extended time on the road? Would you or your family be prepared to forgo a college education to chase your dream or becoming a professional racecar driver? These are all legitimate questions that you need to be able to answer.....

. American Mentality

In 1984, myself and Rick Mears were in Methodist hospital in Indianapolis. Unfortunately we were both recovering from devastating injuries from two Indy car crashes two weeks apart. We both had smashed feet and ankles and significant other orthopedic injuries that required multiple surgeries with bone and skin grafting. I had something like nine different surgeries and Rick had even more. The therapy alone just to walk again was a minimum of two years.

After a two-month stay in hospital I was discharged to a rehabilitation center. Before I left I wheeled my wheelchair into Rick's room and asked him if he thought he would ever race again? He paused, looked me in the eye, and told me that he would because the same desire to race he had prior to the devastating injuries was still burning within him. I told him I felt the same way and we both went back to racing for most of the next decade.

Commitment

The final separator in the Champions Pyramid, **commitment**, is also non-coachable. Just like desire, it is quantifiable but not through measurement by equipment. Without true commitment, it is doubtful that many successful drivers would have made it to the top. Commitment is doing whatever it takes to succeed. The most easily visible manifestation of commitment is a driver's work ethic, and it is really easy to recognize different work ethics among drivers.

True commitment is like a vow, and it will be seriously challenged many times along the journey. What separates those who stay true to their personal commitment is also what separates the ones who can persevere through the pain and frustrations of the motor racings very challenging obstacle course.....

Shortly after he announced his retirement, Michael Schumacher responded to criticism of his often controversial driving style in England's *Autosport* magazine. Michael said he could not argue with observers and fellow drivers who labeled him selfish over fifteen years in Formula one. "I agree with that," he said. "Why should I gift anything to anyone when we're on the track?"

Schumacher's career was punctuated by moments of highly aggressive driving including the clash with Damon Hill at the 1994 Australian Grand Prix that decided the world Championship in his favor. He also hit Jacques Villeneuve at the 1997 European Grand Prix, and took himself out of the race and allowed Villeneuve to become the World Champion. Perhaps one of his most controversial moments might have been his bungled attempt to disrupt the last moments of qualifying in Monaco in 2006 when Alonso was slowed while attempting to take pole position.

To these accusations, Michael simply suggested that his detractors were just misguided. "To be honest, if the other drivers criticize me, then it means I've done things the right way".

Bold, defiant and unflinching. This is real glimpse into the mind of a committed champion.....

.....A great example of what was deemed to be a weak commitment was Michael Andretti's attempt to become established in Formula One. Michael had proven to the world that he was very gifted and had risen to the top of open wheel racing in America. He signed with the McLaren Formula One team as teammate to the great Ayrton Senna. I traveled the world that year covering Michael's every move for ESPN sports television. One of the reasons I became intrigued by his failure was that I believed, and still do, that he was one of the most talented drivers in the world. What was missing? Commitment.

I traveled to many of Andretti's Formula one races on behalf of American cable television company ESPN, and each Friday I would take up a variety of vantage points out on the circuits. As I watched him during practice and qualifying sessions, I saw a driver who did not drive with the style I knew he possessed. He looked awkward and did not seem to fit the car or team. His timing was off and the fluid confident style that Michael had developed was somehow suppressed.

Michael was criticized for not participating in the Formula One lifestyle when he decided not to move to Europe, but to live in Nazareth, Pennsylvania. He would use the family plane to get him to New York airport where he would board Concord for the transatlantic flight. The comforts of home were more important to him than being closer to the team in England.

This was a challenging time for McLaren as it had lost its manufacturer engine deal and had replaced it with a Ford Cosworth engine. It was also a time when the rules of Formula One changed to allow only 12 laps of practice per session. These two moves stacked the odds against Michael but team mate Ayrton Senna proved that they were not insurmountable odds. Senna also seemed to recognize Andretti's talent and was a supporter of his within the team.....

Drivers with the Champions Pyramid

The Champions Pyramid is a bit like a house. It might look similar to the one beside it but everything is in fact just a little different. Every Champion has a different version of the Champions Pyramid. In years past a Champions Pyramid looked different because for one, the physical preparedness was nowhere the level it has become in this day and age. Just like all other sports played out on a world stage, every year that passes makes each sport more and more specialized. In years to come, we will probably marvel at the lengths champions go to be the best they can be. Michael Schumacher's blood tests during test sessions to accurately evaluate his fitness levels, although leading edge at the time, might seem archaic in the years to come.

If you suspect I am a big fan of Senna's and Michael Schumacher, you are correct. In my opinion, Schumacher is the most complete driver ever. Others who built a complete pyramid of skills include: Jackie Stewart, Fernando Alonso, Jeff Gordon, Alain Prost, Dan Wheldon, Scott Dixon, Michael Andretti and Mario Andretti, Gil DeFerran, Sebastian Bourdais, Dale Earnhardt Sr etc.

The Very Best

Although there are many great examples of drivers who have fully developed the Champions Pyramid, few would disagree that if you were to model yourself and understand what it really takes to become truly successful, you should look hard at the career of Michael Schumacher. The technical directors of his two championship winning teams, Ross Brawn from Ferrari and Pat Symonds from Renault were united in their assessment of Michael saying that he motivates and inspires people within the teams. He brings everybody together unlike anybody in the sport before him.

After his final Grand Prix , Speed TV announcer Bob Varsha probably put it best when he said:

“Michael was a selfish opportunist who never criticized his team and a driver who reset the standards by which those who will follow will be judged. That ruthless driver obliterated every race record of note with 68 poles and 91 victories in 16 glorious seasons.”

There is no doubt that Michael Schumacher had the most fully developed Champions Pyramid ever.

How many drivers have ever separated themselves from the rest with this type of quality and how many drivers in the future will do so. Are you a driver with these qualities? Would you like to have these qualities? What would you personally do to develop all of the qualities of the Champions Pyramid? Only you can answer that question and your answer will determine how high you fly.

Epilogue

It is a well-known fact that you are more than half way to solving a problem when you identifying it. Becoming a motorsports champion highlights many problems and I hope I have given you some of the answers to the issues that face most drivers. Large team budgets are sometimes wasted because the foundation is not solid and the execution of the job at hand is not carried out efficiently or effectively. Ex karter Michael Schumacher has proven that the most successful teams are led by the driver.

Within the pages of this book, I have given you a key to a big door. The next step is for you to walk through the door yourself. However, to get through the door, you have to cross a threshold of terrain that requires specific skills and dedication. If you were not blessed with all the skills required for a champion naturally, it is my belief that you can acquire them. I believe World Champions Nigel Mansell, Damon Hill and Graham Hill would agree. So also would Indy 500 champions Buddy Lazier, Eddie Cheever, Gordon Johncock and Johnny Rutherford. These are all driver who worked at developing the skills necessary to be successful.

What you learn on the racetrack can be termed as the tangible part. What you learn away from the track can be the intangible. The intangible can also be the difference between the

amount of hardware you will actually have in your trophy cabinet and the amount you might have had.

The autobiographies of great champions are littered with stories of struggle, pain and sometimes despair. In an era where motorsports has become so specialized, becoming a professional racecar driver while attending high school or college is nearly impossible. Successful motorsports is not just a passion it's a lifestyle. It is a dedication of ones life to the requirements of the career. It is a selfish pursuit where relationships sometimes suffer and understanding partners are almost impossible to find. It is a colorful glamorous savage sport of gladiators who sometimes pay the ultimate price with their lives.

It is an emotionally charged atmosphere where the chase has sometimes left the pursuers both emotionally and financially bankrupt.

It is also one of the world's most satisfying endeavors. The physical difficulties and sacrifices are dwarfed by the golden satisfaction of competition and success. When a drivers talent is exposed and the decision making is tested to the fullest, and the adrenalin fills the veins through a pounding heart, being first to the finish is everything.

The road has now been laid out for you. Now its up to you to start making your way down that road. Are you ready to make that choice? If you say yes, your life will change. How you live your life will change. How you view yourself and how others view you will change. You will think and act differently. My challenge to you is this; in your private quiet time, are you ready to make the choices that can build your own Champions Pyramid? If the answer is yes, then follow the following guidelines.

Focus on being a champion rather than on becoming one. Fill your mind with good wholesome thoughts. You have 100 percent control over what you think, and what you think can be the greatest power you possess.

Strive to be a champion in the way you lead your life, not just in how you approach your racing. This will ultimately demand a mature, solid, and confident mindset that keeps things in perspective. Remember what confidence is about, because it shouldn't be about an outcome. Rather, it should be about a strong inner belief—in fact, an unshakable knowledge—that no matter how big the challenge, no matter how tough the going gets, that you can count on yourself to bring the best you've got to every performance. To consistently deliver maximum effort each time; win, lose, or draw. Even if things don't go well on a given weekend as far as the final results are concerned, you can still be 100 percent successful if your personal 'yardstick' is calibrated this way. It's up to you...it's your choice...and "choice" can be the greatest power you have.

Focus on the process of personal excellence, in the moment, bringing the best you've got to everything that you do. Enjoy the process—take the time on a regular basis to stop and sniff the flowers along the way—and be satisfied that whatever the result is, you've done your part to the fullest. That is the hallmark of the true Champion.

I have really enjoyed putting my thoughts down on paper and I hope you have found the stories and analogies both interesting and informative. I learned a lot about what I have written by recognizing my own weaknesses and consequently looking deeper into the make up of the great champions. My hope is, and indeed my whole reason for writing this book, is to make you think a little more. To make you a little more aware of what might be just around the corner and to give you the ability to take a step that you might not have been able to take by yourself. However, always remember that we are all individuals with unique qualities. Use the information given to supplement and stretch your own personhood. Do NOT use the information to try to become someone you are not. Stay true to yourself and enjoy the success. There will be joy in the journey and I will enjoy seeing some of you on the rostrum.

Best Wishes,

Derek Daly