

An Analogy of Personality Description versus Theory

I believe that the current state of academic personality theory may be missing a major explanatory aspect that could be a significant help in understanding the normal personality. The preoccupation of academicians with the Big-5 factor analysis as the standard for personality assessment doesn't seem to function very well in the real world of OD psychology where you screen senior executives and try to predict their future behavior within a company. If one tried to take this sacrosanct theory head on in the interest of considering other options; it would fall on deaf ears. Hence, rather than focus on the behavior of people; I want to focus on the behavior of a fictitious Car-man system. The Car-man system, that I will refer to hereafter as a Car has some overt measurable dimensions (e.g., tire size, engine displacement) and overt behaviors (e.g., crashing, maneuverability) that we seek to understand in terms of those dimensions. What I intend to unfold is the development of the science of Car psychology.

Birth of Car Praxeology or Car Personality:

We start by observing that a Car has a number of dimensions that are important determinants of its overt behavior. Car "personality theory" started when researchers developed scales to measure what they thought were important factors and then tried to correlate those factors with outcome behaviors. However, correlations between input dimensions and output behaviors are not a theory of how a Car behaves but is a description of a Car's critical dimensions correlated with outcome behaviors that we want to predict. I want you to "suspend" your understanding of physics at this point because that is a theory which explains WHY (to a large degree) the Car does what it does based upon physical input dimensions and physical output behaviors (e.g., sliding off a road and turning over). Let's take a guess at what some of those Car input dimensions might be.

My research efforts in looking at Car behaviors have suggested the following factor analysis of critical Car dimensions:

FACTOR ->	Car	Speed and	Terrain	General
	Capacity	Acceleration	Flexibility	Maneuverability
Facets				
1	Height	Engine size	Tire diameter	Car volume
2	Width	Car Weight	Tire width	Wind resistance
3	Length	# of Gears	Suspension	Suspension
4	# of Seats	Carburetor	Ground clear	Tire pressure

I can develop a scale and measure all of these facets for any Car and I may even notice that the factor analysis is pretty consistent even when looking at European Cars. I can also cluster certain factors and produce Car types. For example, Cars with large diameter tires, tire widths greater than 10 inches, heavy duty suspension and significant ground clearance seem to be able to drive off the road and on the road with relative ease so I think they are the "most flexible" in terms of terrain so I may call them a Car type such as an SUV.

Some researchers bypass this factor analysis and feel that a classification of Car types is the way to go. In essence, they are the same dimensions but they must feel that Types are a "better theory" so we have static Car types that exhibit particular input patterns. However, Car types is just an arbitrary classification that truncates some facet/factor ranges. Types are a shorthand but that does not change that tire dimensions are almost continuous and do not fall in types (e.g., narrow or

wide). Excluding the occasional marketing ploy from Detroit as they unknowingly blend types (e.g., sporty family Car or minivan) their research has come up with the following types:

Car TYPE	Engine Size	Tire size	Cargo Capacity	# of Seats
Sub-compact	100hp – 3 speed	Small/narrow	Minimal	4
Family Car	150hp – 4 speed	Large/narrow	Moderate	5
Sports Car	150hp – 6 speed	Medium/narrow	Very small	2
Touring Car	200hp – 4 speed	Large/medium	Large	6
SUV	200hp – 4 speed	Large/wide	Very large	7

At this point in the development of Car psychology we have two minor schools based on a different use of the same basic dimensions. One favors working with a factor analysis and makes sure that we have the “appropriate number” of factors and facets that totally define a Car. The other school seems content with its 5 Car types and has done a vast amount of research about the actual Car behavior of these types, how they ride and feel and on what terrains they function best. Indeed, there is a popular book entitled, “Please understand your Car, an introduction to Car types.”

Now there is really no sense in measuring Car Types or Car Factors if you don’t correlate those findings with important overt Car behavior. So there have been a number of studies that correlate many of those attributes with what researchers and others (e.g., those who fund studies) consider important behaviors. To simplify the findings, I will talk about Types but you could just as well correlate Factors and facets. Some of those studies have found the following:

- 1) Sub compacts are slow, easy to park, don’t use much gas and hold very little cargo
- 2) Sports Cars are fast, very maneuverable, but get stuck running over mountain trails
- 3) SUV’s are less maneuverable, go over mountain trails, use a lot of gas but carry cargo

Understanding Car Types or Factors may give you a better understanding of Car personalities so now you can correlate those discovered factors with Car behaviors that interest you. Actually you do have some descriptive correlations (e.g., SUV’s versus Sports Cars show different behavior when driving in sand) but you really don’t have a theory about Car behavior. What you know is that SUV’s (or Cars with those factors/facets) handle better in sand than Sports cars.

This seems to me to be about the equivalent of the Big-5 factor analysis and the Type Theory. It is descriptive and helpful to a degree but it falls short if you want a robust theory that predicts Car behaviors from a causal or “purposeful” (i.e., teleological) viewpoint. The Car Type or Car Factor “theory” is only descriptive and is not truly a predictive theory.

Break off of Car “Social Psychology” or Driving Environmentalist

Along comes the “Social Car theorists” who feel that better predictors of meaningful Car behavior are not the dimensions of the Car per say but rather the environment where the Car functions. Indeed, whether a Car is fast, rolling over, crashing or accelerating/decelerating seems to be more dependent upon its “driving environment” than its innate design (i.e., personality) characteristics.

Some of their observations are given below:

- 1) Almost all Cars driving on ice slide off the road with the SUV staying on the longest
- 2) On expressways with few other Cars, almost all Cars exceeded the speed limit
- 3) Pointing radar guns at Cars almost always slowed the Car down regardless of type
- 4) Cars leaving bars at night tended to weave more then those leaving churches

These initial observations resulted in the growth of a school that wanted to look at “environmental influences” as the major source of Car behavior. There were such significant differences in their views versus those of the Factor-analysis or Type school, that they felt compelled to start their own journals. They felt they had a better grasp on the “true causes of Car behavior” and their studies did raise some very interesting concerns for the other schools (i.e., “Car personality theorists”). For example, there was no question that practically every Car did exhibit trouble on ice and it didn’t seem to matter what Type of Car it was. Pretty soon the “driving environmentalists” dropped looking at individual Car differences and found that classifying environmental situations seemed to be a better predictor of Car behavior. After a few years of research they produced some meta-analytic studies that generated some rather startling results that looked like it might spell the intellectual defeat for the Car type and Factor analytic schools of Car behavior.

A single example of a study from the driving environmentalists shows the significant statistical results that were being produced that clearly suggested a “new theory” that seemed to answer or “explain” many more interesting Car behaviors than the old Car personality theory:

“We took 10 different types of Cars and clocked them at various speeds (i.e., 30MPH, 45MPH and 60MPH) around three different curves (i.e., 30°, 45° and 60°) under 5 distinct weather conditions that ranged from dry asphalt to snow to black ice. The results were conclusive and suggest that “running off the road” which is a major social issue is better understood by looking at environmental situations than any of the Factors from the personality school that have been used to describe Cars. The only factor that showed any influence at all was Terrain flexibility and only two facets were statically significant (i.e., tire width and suspension). More than 85% of the “running of the road” can be accounted for by speed (+r), curve size (+r) and degree of dry pavement (-r). Our results suggest that for Car behavior to become a more mature science it needs to redirect its efforts away from the Factor analysis of Car dimensions proposed by the Car personality theorists and move toward a better definition and measurement of the actual driving environments.”

Well there you have it, 80% of the Car theorists in academe are focused on specific driving environments while 20% tenaciously stick to Factor analysis of Car dimensions to understand Car behavior. One group has become very good at measuring Car dimensions and correlating them with Car behavior while the other group measures environmental factors and sees them as the “true” source of all overt Car behavior.

Still, there is no “real Car behavior theory” but only correlations between Car dimensions or driving environments to predict probable Car behavior (e.g., going off the road). This is descriptive and useful but there is no theory at all. Now we do know that much of the variance in observed Car behavior is actually a subset of physics. The dimensions that we looked at and discovered in our factor analysis as well as the driving environments are better explained by a theory that applies to all accelerated masses on a surface. The theory of Car dimensions really rests on weight (mass), acceleration, velocity and center of gravity. These factors describe not only the behavior of Cars but everything else that moves, from planes to billiard balls. In addition, physics in terms of coefficient of friction, surface area, wind resistance and angular momentum describe all driving environments and the two together almost totally exhaust the causes of overt Car behavior.

Physics would explain all Car behavior if the Car was empty and had no driver to consciously modify the Car behavior based upon some “implied driver motivation.” Remember, our “Car” was originally defined as the system of the physical Car and the driver. What is apparent at this point is that both of the previous schools looked at external factors (either car dimensions or environment) and tried to explain Car behavior in terms of concrete measurable dimensions (either inherent in the Car or environment) and never attributed any “motivation” to the Car (really a Car-man system) such as I like to drive fast, or I am a cautious driver or a thrill-seeking driver where I can actually change the Car behavior based upon my needs and environmental cues (e.g., slow down on ice or

curves or speed up in a sports Car and not my family Car). This would suggest a theoretical shift from WHAT to WHY. What is a description and why is a theory.

The bottom line is that neither school has a theory of Car behavior but has a descriptive framework that gives the impression that they understand what is actually going on. We can “predict” certain behaviors with some statistical precision using both the factor analysis and controlling the driving environment (e.g., sports Cars maneuver better than SUV’s at high speeds on dry pavement) or by describing the environment alone (e.g., almost all Cars go off the road when it is a hairpin turn on black ice). Of the two theories, the driving environmentalist may be the more robust in predicting behaviors that we are interested in (e.g., going off the road) but that doesn’t make it a better theory because we have no theory of Car behavior until we understand physics. Lastly, you notice that none of the “discovered factors” for either the Car personality or the driving environmentalists appear as concepts in the final theory (i.e., physics). This may suggest that as you struggle to mathematically define a non-theory, the sophistication of the mathematics can mask a non-theory or a poor theory and give you the impression that you really know what you are talking about.

If your results sound too much like common sense (e.g., many Cars stay on the road when it is dry and then as it starts to rain and then snow and then freeze they are more likely to slide off the road) what is the point of measuring that and stating it with some precision? Does that make it a scientific theory? If you told this to most drivers they would suggest that it was common sense and you have not given them very much help. If you told a driver about the coefficient of friction and the angular momentum, he now doesn’t tell the police officer who helps him out of his wrecked Car, “I knew from many studies that if there was ice on the road, I would have a 65% chance of going off the road at my speed on that curve but there were no studies on oil spills so I didn’t slow down.”

In a way this is a little silly but you can see the problem with descriptive correlations versus having a “true theoretical understanding” of Car behavior. The theoretical relationships among, angular momentum, acceleration and coefficient of friction dictate when most Cars go off the road. It is true that sports Cars go off the road more often on ice but with different tires (e.g., studs that increase the coefficient of friction) that same sports Car dramatically reduces going off the road. Correlations tell you WHAT and physics tells WHY. A Car on ice goes off the road 65% of the time. What does a car on oil, on sand on top of snow or any other surface do? With correlations, if you change the road, the tire or anything else, it’s a new study to see what the correlation tells you about those specifics. With physics, the theory tells you what to expect because you understand what is going on and if it is a good theory it will even give you the answer.

Well the competition between the Car personality theorists and the driving environmentalists continued on and on as each did their studies and published in their respective journals. It might have ended there if it wasn’t for the birth of the “Car behaviorists” who worked at insurance firms. They were happy to pull from both theories but alas, their crash data suggested other forces.

Applied Car Behavior school attempts to use academic efforts:

Nothing is quite as practical as a good theory. You see the insurance companies didn’t really care who was right or who had a better theory but they needed to predict what particular Car would go off the road under what conditions. If you didn’t go off the road and they charged you too much, you would buy your policy from someone else. If you frequently went off the road, they would lose money fixing your Car. Hence, the insurance companies didn’t really care about the purity of the theory, or how many factors really existed for Cars or what were they most favorable driving conditions unless they helped them predict the actual Car behavior for Mr. Smith’s three Cars in Dallas, Texas. The insurance companies started with the “borrowed knowledge” of the academic Car scientists and within short order produced the following underwriting guidelines:

Factors	Impact on Insurance Rates for Going off the Road		
	Lower rates	Neutral rates	Raise rates
(1) Car Personality Factors			
SUV		Start	
Sports Car			Start
Family Car	Start		
Engine size	Raise 5% for every 25 horsepower		
Number of transmission speeds	Raise 15% for every 1 over 3 forward speeds		
(2) Driving Conditions			
Days of ice	Raise 5% for every 20 days of ice		
% of Day time driving	Lower 5% for every 10% over 70% of daylight driving		
Average driving speed	Raise 25% for every average increase of 10 MPH		

From this start the insurance companies noticed that this was working pretty well. However, they had an advantage over the academic types who only dealt with “general laws” and published their studies in journals. You see the academic types always used a 19 year old college student as the driver for all their studies and everything was controlled because of the nature of science. In actuality, everyone really was studying the Car-man driving system and the academic researchers never knew that there were other drivers who were very different from their 19 year old student.

However, since the insurance firms were forced to deal with actual claims rather than studies of “going off the road behavior” they started to wonder if there were other issues because sometimes it seemed that the DRIVER and not the Car factors or the driving conditions caused the actual Car behavior. Some accident reports started to get published in their own applied Car behavior journals and a significant breakthrough was that they noticed that the DRIVER in the Car-driver system had some potential impact in determining going off the road behavior.

Of course the insurance companies were not interested in a Car theory like the academics but they wanted to improve their rate structure. They didn’t want to understand Car behavior to develop a theory but they wanted any data (e.g., actual driver behavior) which helped them better understand actual Car behavior (e.g., going off the road) to improve their rates. However, as practitioners they were interested in applied learning and never came up with a theory. A look at the data collected suggested modifying the rates and this was producing some positive results. By aggressively using this data, knowledgeable insurance companies increased market share by offering lower rates and were becoming more profitable by reducing their total risk exposure. An example of one of their studies was they looked at all sports Cars going off the road in a 45MPH zone during light rain. Neither of the academic Car behavior schools had anything to say about this because there was no difference in Car type or driving conditions. However, the insurance study found the following:

Driver Factors	Off the Road %
Male	68.9%
Female	31.1%
Below 21 years	62.3%
25 – 45 Years	32.7%
Above 65 years	1.6%
Blood alcohol >.05%	19.2%
Blood alcohol >.10%	81.3%

Now Driver data became standard input for all insurance companies but it was really a statistical shorthand for Driver behavior (still not a theory) but it worked pretty well in establishing better rates and controlling losses. Additionally, when this was combined with the previous two schools it produced the best results and did a much better job than either school was able to do individually or collectively. The beauty about this system is the data was readily available; it was “fair” to use to adjust rates and met the needs of the insurance firms. By the way, this became an academic school because it was able to secure significant government and professional funding. It was called the Applied Car Behavior School and there was some cross fertilization between the academic setting and insurance companies. Incidentally, they started their own Journals.

Before this story ends, there was a small group of insurance behaviorists who left the insurance firms and contracted with individual drivers to improve their “overall Car behavior” so it was more socially acceptable (e.g., reduce the likelihood of “going off the road” behavior so the person could get lower insurance rates). Now, you had “normal Car behavior” that was studied by all the schools mentioned up to this point and probably predicted the normal behavior of Cars and you had a small set of practitioners who tried to improve “pathological Car behavior” that was defined by having very high insurance rates. For the first time in Car psychology, the focus was not on global Car behavior but the behavior of individual Car-man systems. The distinction was the nomothetic laws of general Car behavior versus the idiopathic study of individual Car-man systems who had poor driving records and who were referred by the insurance companies for Car therapy.

Initially, the Car behaviorist practitioners fell into three basic practice disciplines and started to produce their own knowledge base. Below is an example of their typical interventions when confronted with a poor driver who they had to help.

- 1) **Car Personality – Factor analytic:** Ralph, you will either have to switch to a family Car or get a smaller engine if you want to reduce your rates.
- 2) **Driving environmentalists:** Ralph, you will either have to stop driving on ice, reduce the percent of your night time driving or keep your speed under 70MPH.
- 3) **Eclectic insurance:** Ralph you will have to wait until you are 25 years old, stop drinking while you are driving and do what the other two schools suggest.

What was still missing was a theory of intentional Car behavior (i.e., purposeful or teleological) but it was actually imbedded in the insurance data that the companies had been collecting about the DRIVERS of the Car-man system. It could not be found in a better Factor analysis of the Cars or a better environmental assessment (of course you still might want to improve those approaches). Basically, you had to stop looking for global laws external to the Car-man system and start to understand the individual Car-driver system combinations and their interactions which actually created the observed final Car behaviors. Ironically, the insurance firms uncovered that major source of data and it was the makeup and motivation of the DRIVER that would yield the most fertile results. However, there was no particular pressure to do this because the people who lost their insurance and wanted to seek Car therapy were a very small group and the “non-intentional” therapies above seemed to result in lower rates and that was that.

Hence, the academics were happy because they continued to do additional studies in their respective disciplines that looked at global laws and produced correlations that usually were in the 0.3 range accounting for about 10% of the variance. The insurance companies were happy because they continued to refine their eclectic understanding to get better rates which created additional market share and more profits. Everything appeared to be fine on the surface but there was one thing missing. No one really understood why Ralph went off the road 3 times. One school knew he had a sports Car and that was enough for them to explain what was going on. One school

knew that he almost always drove too fast and loved to lay into the turns so they were content with their understanding of him moving into dangerous environments. The insurance company knew that several of his behaviors, including his desire to drink pretty much explained why he had such high rates so they were content to charge him top dollar. But no one bothered to make the obvious connection between what Ralph was like and how this influenced HIS Car behavior. Basically, there was no theory of driving behavior and for the most part no one really cared.

Analytic Car Behavior school focuses on driver intentionality:

One group of Car therapists started to focus on individual cases and started to publish prototype cases to illustrate specific underlying Driver behavior that influenced the Car-man system. This school was not very well received because it didn't produce studies with N's greater than 100 and complex statistics. Indeed, the analytic school started to develop a system to understand the DRIVER because they believed that armed with this theoretical understanding they could change the actual Driver and with this insight, the driver would change the Car-man system and his rates would drop. Their articles tended to be verbal with no mathematics, design of experiments or statistics. Instead they postulated hypothetical constructs that certain Drivers had (e.g., Thrill seeker) and given those tendencies, you could expect certain Car behaviors (even out of the Car!) and they suggested how they developed, were perpetuated and perhaps reinforced.

They were criticized because they not only neglected the Car but even the driving environment! In addition, they only dealt with poor drivers who were probably less than 5% of the car population and since there was no clear study but primarily case histories, it was not even a science of Car behavior. It was hermeneutics or at best a hypothetical model of what a poor driver was like and maybe it was good for helping drivers but mainstream Car behavior scientists didn't take it very seriously. This school postulated certain basic dynamics that would influence not only driving but other behaviors as well. For example a few of the dynamics they postulated were:

- 1) **Thrill-seeking:** A desire to get in a Car, drive fast and take risks so the Car from the outside often looked like it was partially out of control. This behavior also affected the person when they used power tools because they were injured more often.
- 2) **Overly-cautious:** A constant preoccupation with the Car and the driving environment so the Car from the outside moved much slower than other Cars. Furthermore, when the driving conditions changed the Car behavior changed in response to the environment. This behavior also affected the person when they used power tools because they were seldom able to finish projects in the allotted time.
- 3) **Low driver-focus:** The person often talked to others, made phone calls, played the radio and self-reports suggested they did other things rather than watching the road. From the outside, the Car often looked normal but for some unknown reason it would veer off the road but then usually self-correct. This behavior also affected the person when they used power tools because they were injured more often.

The analytic school never really went very far but it was the only school that ever created a "theory" of Car behavior based on certain dynamics that influenced the driver and in turn influenced the Car behavior. It was the first school that suggested that driver intentionality was a major causal basis of actual Car behavior. However, since it focused on poor drivers and never published studies with statistics it turned into a religion with a few anointed practitioners who claimed to understand Car behavior and did have some success in helping poor drivers but they were doomed to fail.

The major Car therapy interventions became more focused on the external pathology (e.g., going off the road) as viewed from the outside which created a nosology based on symptom clusters. It resembled the medical model of sickness where Car pathologies were categorized and statistical studies about type of Car therapy and the efficacy of those therapies in terms of quantitative symptom reduction dominated the literature. Once again, the “poor driver” who needed treatment was lost and specific symptoms (e.g., fear of driving in the dark or on snow or in a SUV) were isolated and symptom reduction was correlated with Car therapy types. There was little interest in WHY a driver might create pathological Car behavior and the focus shifted again to the vehicle dimensions and driving environment. This dominated the Car pathology literature and the “intentionalities of a Driver” or purposeful Driver behavior or Driver motivation was lost as both the Factor analytic and driving environmentalist schools continued to dominate Car psychology.

Could driver intentionality help better define the Car personality?

Recall that the analytic school started to categorize Driver types independent of the Car (basis of the factor analytic school) and the driving environment as a method to understand how to correct Car pathology. What would happen if you created some scales to measure Driver intentions and could those scales become the basis of a purposeful theory of Car behavior? That is, the Car-man system does have Car Factors that are important in predicting Car behavior, as are the driving conditions but what about the intentionality of the Driver? It is probably another aspect of the Car-man system that should be considered and when the WHY of Car behavior is combined with the descriptive aspects of both the Car and the driving conditions it should give a superior model. If there were actually Driver dynamics and you could measure them; you should be able to approach the major Car psychology schools and suggest how this theory may supplement their efforts!

The first effort was to approach the Applied Car Behavior School and suggest that they may have been looking at the wrong variables in reaching their conclusions about Car behavior and there was a better model. For example while age made sense in their statistics, it was not age per say but it was the intentions of the driver that really was causing the problem. For example, the reason that the young males went off the road was that they tended to be Thrill-seekers and age was not the reason (the WHY of a theory) but was correlated with the overt Car behavior. If you isolated the primary dynamics of the Driver using the Driving Dynamic Test, the Thrill-seeker score increased and as the Overly-cautious score went down and the person was more apt to go off the road!

The Insurance firms raised some interesting concerns as to why they were not interested:

- 1) We are not going to measure all applicants to get specific scores even if you are right
- 2) We are concerned about general populations so young males is fine for our needs
- 3) We only use the general data to set rates and are not interested in specifics or the WHY

Given the role of insurance companies, this made sense. They were driven by predicting global Car behaviors (e.g., going off the road) that may actually be based on individual dynamics (e.g., high Thrill-seeking) but those dynamics (which explain the behavior) are hard for the insurance firms to obtain in a reasonable fashion. However, it seems that if the insurance firms use age as their major variable in determining rates and while age is not a casual dynamic, it is correlated with the manifestation of the causal dynamics. If one could do the study, it would not be surprising to find that the dynamics were better predictors of Car behavior than age, sex and other demographic variables but the demographics were good enough for insurance purposes.

The second effort was to approach the Driving Environmentalist School but they were quite clear that the major intent of their work was seeking better definitions of the environmental variables that affected driving behavior. They did have an interest in looking at both pathological Car behavior (e.g., increases in going off the road in various weather conditions) as well as normal behavior (e.g., finding the interaction between increased speed and road traction) but they did not want to know about the Car type and certainly didn't want to know about the "soft purported" Driver dynamics or motivations that were inferred and not as easily measured or quantified.

That left the Car Personality School and there were really two major activities going on. One was academically based and it was an effort to determine the "real factors" of Cars and they basically agreed there was 5 major Factors that completely described Cars and those Factors could be correlated with just about anything else you wanted to know. Their major effort was focused on determining what facets made up those 5 factors. There were several Car personality tests that were used and they all pretty much did the same thing. Since they seemed less interested in having a theory of Car behavior and more interested in producing a description of Cars (i.e., the personality of a Car) that could be correlated with all other kinds of meaningful behavior (e.g., going fast, climbing mountains, parking in small places, beating other Cars when the light turned green), they were not receptive to a "theory of Driver intentionality" to better explain some of the very behaviors they were looking at. They seemed quite content with small correlations in the 0.3 range and a descriptive model that they believed was a "theory" of Car behavior.

The last potential test for Driver intentionality to better define the Car personality:

What about some practice of Car psychology that wasn't interested in general laws but wanted to select the best Car (recall it is a Car-man system) for a particular function. This would be ideal because the better the description of the Car behavior before the selection the better the ultimate selection would be. If you could prove that driver intentionality added something to the description provided by the Factor analysis, this should have a far reaching impact on all Car psychology.

The first step to overcome is the belief that the "new variables" in the Driving Dynamic Test just measure the same old factors in the Five Factor Model (FFM). That is, the Dynamic measures cannot be factor analyzed or correlated with the factors from the FFM otherwise they add nothing. Indeed, the dynamics of (1) Thrill-seeker, (2) Overly-cautious, (3) Driver-focus, (4) Eye-hand ability and (5) Competitive-thrust did not correlate very well with the FFM factors of the Car description and did add additional explanatory content to the behavioral description of the Car-man system. This is not too surprising when you consider that the traditional Factor analysis is focusing on the Car itself (static dimensions like tire size) and the new measures focus on Driver behaviors.

Now that we have this putative dynamic model of Driver Intentionality, let's re-look at a Car types that should exhibit certain known behaviors based on our correlational studies. I'll use Types because they are easier to understand than ranges on certain Factors. Say we do a study and we cull out only Sports Car types. Now our original "FFM theory" basically says that these Cars are all pretty much the same and should exhibit the same type of Car behavior in terms of going off the road, speeding, maneuvering in traffic or whatever. Now, out of this 250 homogeneous Sports Car types we give them the Driving Dynamic Test and some new Car personality behavior arises that was buried in the FFM and went unnoticed. Witness the following:

- 1) High scores on **Thrill-seeker**: Many Sports Car types actually exhibit this dynamic and you may think it is the same thing as a Sports Car type but it is not. Indeed, when this dynamic is found in the family Car type (< 4% have it) it accounts for 31% of the accidents.

- 2) High scores on **Overly-cautious**: Few Sports Car types exhibit this dynamic (< 3%) but when they do the Car looks very different from the outside. It is usually buried and is “noise” in a typical FFM study but when it is isolated; the Sports Car type seldom exceeds the speed limit and is the one that has statistically significant fewer tickets.
- 3) Low scores on **Driver-focus**: Only a moderate number of Sports Car types (<9%) exhibit this dynamic because it seems that most Sports Cars have fairly high driver-focus scores because those who drive sports Cars (this is theory, not description) like the actual driving as opposed to those who drive family Cars which seem to have different motivations. In any event, this dynamic in this vehicle seems to result in a significant number of crashes.
- 4) High scores on **Competitive**: Many Sports Car types exhibit this dynamic and its most obvious manifestation is when the Sports Car “sees” another of its kind it often engages in behavior to incite the other Car. It is especially dangerous if two of these types with the same level of competitive dynamic find themselves together on a desolate stretch of highway. They often both accelerate and seldom stay within the speed limit.
- 5) Low scores on **Eye-hand ability**: This is also seldom found in the Sports Car type (< 14%) but when it is evident and they downshift into a curve they are 4 times more likely to put the car into reverse and blow out the transmission than any other dynamic.

Just as the above observations were related to the Sports Car type or the FFM with certain scores on a given Factors (i.e., a range of scores produces a type) you could look at all the other Car types in a similar fashion. Indeed, you could redo practically every study that was done using the FFM and those from the driving environmentalist’s school and determine if the Drivers Dynamics has an effect and improves your understanding. Chances are that you might be shocked at the impact on your old findings. When a descriptive model (e.g., FFM) is combined with a personality theory (e.g., Dynamics) and that is used as the basis of the personality description every study that has ever been done will be seen in a different light!

In addition, if you look at the driver environmentalist school you will find an interaction between the Driver dynamics and the driving environment. For example some sport Cars accelerate and others actually slow down when approaching a curve so there is an interaction between Driver dynamics and the driving environment. If you redid some of the studies of going off the road under snowing conditions at night (where all Car types basically went off at the same rate) you might be surprised to find that high scores on Thrill-seeker dynamic went off the road 5 times as often as did high scores on the Overly-cautious dynamic.

Now everything that you believed from the Factor analytic school and the environmentalists may have to be modified but this will produce more meaningful results and a better understanding of ACTUAL Car behavior! This could be a major boost for the future study of Car psychology. Now by analogy, just think if you had a dynamic model for the normal human personality. What would that do to the study of Human Psychology! I have spent the last 10 years collecting data in my OD practice on such a theoretical model that posits 9 human dynamics. I have the model and the test that measures those dynamics and the results are quite meaningful. I would like to share both the results and the model/test with my fellow psychologists but that may be difficult because I am not from academe and the “theory” is not acceptable in mainstream psychology. However, it works and I would be happy for anyone to use it in any of their studies so they can either “prove/disprove” its utility in resulting in an improved understanding of behavior that transcends the FFM.