# Behaviour, Motivation, and the Retention of Junior Black Belts

Understanding the impacts of motivation on sport, performance, mental health, and the retention of junior black belts in Tae Kwon-Do.

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# Introduction

The last decade has presented huge growth in opportunities for young people to explore extracurricular sports and activities - including Tae Kwon-Do. An increasing population of children and young adults presents unique challenges to International Tae Kwon-Do New Zealand (ITKD). With a larger number of students beginning their Tae Kwon-Do journey at a younger age, students are rising through the ranks and attaining their first-degree black belts at much younger ages than previously demonstrated over the last decade. This poses a new challenge to the organisation with how to retain junior black belts.

Academic literature can aid our understanding of the needs of young people in high performance sport and allow ITKD to develop programmes that respond appropriately to these needs. Self Determination Theory (SDT) is a theory of human motivation which is particularly pertinent to this. An exploration of SDT in relation to Tae Kwon-Do will be beneficial in aiding the organisation's understanding of the challenges and demands placed on young athletes, including increased pressure on mental wellbeing, as well as key rewards and motivators to continue participating in sport. Gaining a theoretical understanding of the potential barriers and facilitators to engaging in Tae Kwon-Do will be essential if ITKD are to respond to the growing and evolving needs of members as the demographics continue to change.

With a growing gap in the membership demographics from under the age of 18 to the over 35 age groups, the organisation may experience a more definitive split in the age groups in the future. A targeted youth retention strategy is critical to ensure that the organisation can offer junior black belts a greater level of opportunities to increase motivation and retention, particularly as they age out of the junior age group.

This essay will explore the changing membership demographics of ITKD, focusing on the challenge of retaining youth who have achieved their black belt at a young age and may face subsequently limited opportunities for development. Self Determination Theory will be applied to understand motivation in young people, as well as the barriers to motivation and participation, with a focus on mental health. A brief overview of potential alternative pathways for youth that ITKD may wish to consider will also be presented.

# Junior Black Belts and Changing Demographics

The diversity of clubs across New Zealand has made Tae Kwon-Do more accessible than ever for students who want to learn martial arts. With the development of the mini kids' syllabus and the inclusion of ITKD into Sport New Zealand's KiwiSport scheme, Tae Kwon-Do has received considerable exposure amongst school aged children. Since 2008, the percentage of students under the age of 18 has increased steadily from 61% of the total membership to 75% of the membership in 2021.

Over the last 8 years (2013-2020), students under the age of 18 have continued to account for roughly 74% of the total membership base and an average of 84% of all new members joining the organisation per year. From 2013-2019, on average roughly 82% of students leaving the organisation were under the age of 18, but interestingly in 2020, this age group only accounted for 33% of students leaving. Overwhelmingly, the number of students joining the organisation in the 6-8 years old category, the 9-11 years old category and 12-17 years old category are relatively even in each calendar year. This illustrates that while there is an increasing interest amongst all children and teens in Tae Kwon-Do, there is also substantial change with this group which is responsible for a large percentage of the students that also leave each year.

The changing demographics of the membership base is not a surprising trend. Over the past 12 years, ITKD have made significant strides in making the Tae Kwon-Do syllabus more accessible to younger students, notably with the introduction of the mini kids' syllabus in 2009 and the KUBZ programme for pre-schoolers in 2013. While the introduction of the mini kids' syllabus was introduced in New Zealand in 2009, its steady popularity for younger students has seen the syllabus revised over the past 12 years to extend up to the 8th gup syllabus, and in the 2021 revisions make the 10th gup syllabus more achievable for an 18-month period. The breakdown of the wider Tae Kwon-Do gup syllabus, particularly the theory component, with the addition of the children's version of the gup syllabus book, is reflective of the growing number of young children progressing through the coloured belt ranks.

As with many martial arts, achieving the rank of black belt is a significant milestone. With such a substantial percentage of the membership base being so young, it is not uncommon for students to sit their first dan grading when they are under the age of 18 (attaining a junior dan belt). With students achieving their first dan black belts at a younger age, this poses a new challenge to the organisation, particularly with regards to how to retain junior black belts as they grow and mature.

From 2013 to October 2021, there have been a total of 42 Dan gradings with a total of 327 junior students present. There are two limitations in this data to note: firstly, that these numbers include students who have been successful in attainting their first dan black belt and have subsequently gone to sit for second and third dan, and secondly that these numbers include junior students who have been unsuccessful in attaining their requested rank and subsequently re-sat the grading.

In 2013, there were 66 junior black belts. This number has since increased each year, almost doubling in 2020 with 110 registered junior black belts. From representing only 15% of the total number of black belts in 2013, under 18's now account for 25% of the total number of black belts in New Zealand as of 2020.

From 2013 onwards, the number of junior students sitting a dan grading continue to increase each year from a minimum of 20 junior students in 2013, to a peak of 49 junior students in 2017 and 2020. This is in line with general trends across the membership demographics, therefore, it is a reasonable assumption that as more of the ITKD membership base continues to grow with junior students, the number of junior students sitting dan gradings will continue to increase.

However, of the 327 total junior students who have sat their dan gradings over the last 8 years, 106 (32.5%) have since left, 44 (13.5%) have their memberships on hold or are unregistered and 177 (54%) are still active. Although it appears that over half of the junior students that grade to black belt stays within the organisation, the retention rate changes dramatically when looking at the percentage of students who have left at each year. Only 3 of the 20 (15%) students who graded to junior black belts in 2013 remain active, compared to the 44 of 49 (90%) of these students who graded in 2020. Baelish et al., (2014) suggest that approximately 30% of youth discontinue participation in at least one sport club annually.

Using this 30% attrition rate as a rough baseline, the idea that 30% of students will be lost per year would assume that the general attrition trendline would be flat (Balish et al., 2014). However, from 2013 to 2021 (for complete years in data captured), the retention rate has changed considerably. 13 of 44 (30%) students remain active from 2016 and only 24 of 49 (49%) students remain active of 2017.

While the active rate of students increases in 2018 (67%) and 2019 (63%), the dramatic upward trend of 'active' students' rate perpetuates a false sense that ITKD are retaining junior black belts, when in reality, junior black belts are staying with the organisation for longer than a year before dropping out if they decide to leave.

This indicates that while Baelish et al (2014) estimate that approximately 30% of youth discontinue participation in club sport annually, the discontinuation rate year by year varies dramatically, but over the 8-year period from 2013 to 2021, 54% of junior black belt students remain active in the organisation with only 32.5% having since left overall.

Interestingly, despite the growing number of under 18's, the data shows a significant drop-off in retention in the 18-24 and 25-34 age groups. For example, in 2020, those under the age of 18 accounted for 75% of the total membership, in comparison to those aged 18-24 (5.7%) and those aged 25-34 (3.8%). This is notable as it not only demonstrates that there is a growing retention issue in the young adult/twenties age band, but that a number of our juniors in the 13-17 are not staying with the organisation as they age into these age-bands.

This creates a 'double-whammy' effect, where a sharp decline in membership in the 18-24 and 25-34 age bands are being felt by students leaving, but students also aging up and not being replaced by younger students aging in as they are also leaving.

If this trend continues, the membership demographics will experience a split in two, where a significant proportion of the students are very young, and a large proportion of the students will be in the older 35 and above age category.

This has significant flow-on effects for the organisation if ITKD cannot retain junior black belts. If they continue to leave in droves, when our older generations decide to retire, there will be a significant knowledge and experience gap. Instructors may be unable to fill their positions when they choose to step down, and this may cause many clubs to subsequently close. Junior black belts are largely important in the teaching and shaping of future generations to come, which will not happen if they choose to leave. Therefore, it is imperative that ITKD understand that the statistics conclude that the number of junior black belts will only increase in the future, but equally, that they are also leaving in large numbers.

While the membership data can be used to understand the movements of junior black belts, it does not lend itself to understanding exactly why juniors leave. Given the importance of retaining junior black belts, it is imperative that the organisation understands what drives youth behaviour and motivation in sport. This in turn may contribute to the development of support structures that ensure the success and engagement of junior black belts in the sport once the rank of first dan black belt has been achieved, into their young adulthood and beyond. To this end, a psychological approach to understanding motivation to engage in high performance sport, and potential barriers to engagement, has been employed.

### Motivation and Sport- the Self Determination Theory

Self-determination theory (SDT; Gagne & Deci, 2014) is a major theory of human motivation, and has been applied to a variety of organisational settings, including high-performance sport. It outlines how core components of motivation may be necessary to contributing to an individual's wellbeing. Both intrinsic and extrinsic motivation have been identified as drivers of human behaviour (Gagne & Deci., 2014).

Intrinsic motivation describes the human tendency to move towards growth and personal fulfilment, and to engage in behaviour because it is inherently satisfying or engaging. In other words, this is the idea of participating in something for its own sake (Gagne & Deci., 2014). In contrast, extrinsic motivation describes contexts in which people are motivated by the potential to gain external rewards such as financial or social capital, or to avoid punishment. In these cases, individuals may engage in an

activity because gaining valued rewards or resources is contingent upon that engagement. While extrinsic motivation is certainly an important driver of behaviour, pursuing a goal or activity purely with the aim of gaining a reward can lead to undue pressure or tension, rather than enjoyment. It is therefore argued that intrinsic motivation is key to an individual's overall wellbeing and life satisfaction. Intrinsic motivation is underpinned by three core psychological needs: competence, autonomy, and relatedness (Vallerand & Reid, 1984). When these needs are met, an individual is more likely to find satisfaction in pursuing an activity. People tend to flourish when they begin to feel competent, as though they are a master of their environment and able to overcome relevant obstacles (e.g., Vallerand & Reid, 1984, White, 1959). Competence on its own is necessary for both intrinsic and extrinsic motivation (Gagnes & Deci, 2014), else people may feel helpless if they are not progressing towards mastery. Autonomy refers to the need for individuals to direct their own goals and life pathways and feel a sense of control and choice. A study in 2012 that used over 184 data sets to understand SDT in relation to health care and patients found that autonomous motivation (intrinsic motivation and internal regulation) resulted in more positive behavioural and effective outcomes than when motivation was controlled through extrinsic stimulants (Gagne & Deci., 2014). The combination of competence plus autonomy is necessary for an individual to be intrinsically motivated – the more psychological needs fulfilled by an activity, the more likely it is they will engage in it for its own sake. Additionally, relatedness, or a sense of community, belonging, and meaningful interaction with others forms a third key psychological need. Together, competence, autonomy and relatedness are argued to be essential for producing intrinsic motivation (Gagne & Deci., 2014).

When junior students achieve their first-degree black belts, there is a feeling of mastery and competency of Tae Kwon-Do. While some are driven for the extrinsic motivation of reward or the achievement of a goal, this can diminish the intrinsic motivation which ultimately plays a key role in the detachment of continuing their Tae Kwon-Do journey (Scott, 2018). When students are driven to grade for the sole purpose of a black belt, they are driven by the external reward, which once achieved, if there is no extrinsic motivation to replace the achievement of black belt, they will likely leave because their own intrinsic motivation will not be enough to 'make' students want to continue.

While achieving a black belt is a huge extrinsic motivator, juniors may be driven to grade for other extrinsic rewards. Social capital and the 'status' of being a black belt can be a particularly large motivator for young students, particularly with the side benefits of an increase in self-confidence associated with the feeling of competency (Scott, 2018, Gagne & Deci., 2014). This can lead to family pride, particularly in students whose instructors often hear 'we just want our child to get to black belt'. Other students may see the achievement as a steppingstone to bigger goals, such as being able to trial for the World Champs team or even by 'being the best' when competing in tournaments. In these cases, it is important to recognise that drive to achieve a black belt for competency or mastery does not lend itself to the development of intrinsic motivation.

### **Motivation and Performance**

Cerasoli, Nicklin and Ford's 2014 study advances on this idea of intrinsic and extrinsic motivation to explore what impact motivation has on performance. Performance can be at a high-level split into two categories, quantity, and quality. Intrinsic motivation has been shown to excel at quality type tasks, due to the required engagement of skill and personal investment (Cerasoli et al., 2014). This means that where autonomous decision-making is involved, those intrinsically motivated are likely to achieve a higher performance.

Extrinsic motivation is likely to predict a stronger performance in the quantity type tasks due to the focused and structure behaviour that is required to achieve the task. Those motivated intrinsically are

less likely to perform as well in quantity type tasks because they are typically lower in complexity, which requires less cognitive investment (Cerasoli et al., 2014). When the level of engagement is low, there is less satisfaction for completion of the task. However, those extrinsically motivated are likely to perform much higher than intrinsically motivated people in quantity type tasks because they are more driven by the idea that output equals reward. Therefore, it is important to recognise that intrinsic motivation is good because it leads to performances that are higher in quality (Cerasoli et al., 2014).

The same study also found that as age increases, intrinsic motivation becomes a stronger predictor of performance than extrinsic motivation. Interestingly, the study reported that older participants had higher levels of performance than their younger counterparts (Cerasoli et al., 2014). In simple terms, young people are more likely to be motivated by extrinsic rewards that facilitate competence, autonomy, and mastery, in comparison to adults who will continue to engage simply because they want to be there and can generate those rewards internally.

This implies that our junior black belts may not have developed the internal drive to be wholly intrinsically motivated to continue with Tae Kwon-Do, which may go some way to explaining why people drop out once the external motivators such as, grading and competition become more difficult and thus experiencing less frequent 'rewards'.

Currently, the opportunities for junior black belts have anecdotally been identified as more limited than when they were gup students. As coloured belt gradings are held typically three times a year, the learning time in between each rank is significantly shorter than that at a dan level. From waiting three to four months for the opportunity to grade and gaining that recognition of achievement, students must wait 18 months before they are able to sit for their second dan and 2 years before being able to sit their third dan. As the difficulty of the gradings increase, students may find that they are unable to meet the requirements for the next rank and are unwilling or unable to continue training towards it as the extrinsic motivator no longer fulfils that requirement for competency and a sense of mastery.

While tournaments provide opportunities for junior black belts to compete against others, particularly their eligibility to trial for the World Champs team, the competition for limited spots on the team, or competition in the limited divisions in tournaments means that juniors experience a decline in the frequency of rewards.

The lesser number of divisions at tournaments for black belts in comparison to coloured belt divisions, particularly where the tournaments are smaller, such as Regionals, mean that they are often competing against the same students. Some junior black belts may be less inclined to compete at tournaments because they are unable to place either in the division or perform as well as they 'used to'. Where this happens repetitively, junior black belts may experience a drop in motivation as they are unable to obtain the reward, in this case, medals.

Because of this decline of frequency in rewards from both attaining a new rank and competing at tournaments, this can significantly impede the gratification felt through Tae Kwon-Do and diminish the feeling of competency and mastery.

However, this study also shows that extrinsic incentives that are clear, well-defined, and obtainable, are also able to facilitate the development of competency, autonomy, or relatedness (Cerasoli et al., 2014). While a 'rewards' system should not be instigated at a dan level to mimic the feeling of achievement similar to gup levels, the organisation should consider the diversification of opportunities for junior black belts to ensure that other extrinsic motivational goals can be found.

Components of the black belt grading requirements such as completing an instructor's induction course, mean that students develop different skills as they progress throughout the ranks. While not all students want to, or are comfortable being instructors, there are many different skills that they do learn from courses that contribute to a feeling of competence and mastery, such as umpiring. By diversifying opportunities available to junior black belts, if they are unable to meet the requirements to more traditional goals, such as, grading and competing at tournaments as the level of difficulty increases, offering different ways that students can contribute to the organisation in ways that complement their skills can build and solidify the feeling of competence and mastery, but also foster stronger feelings of autonomy and relatedness which are also crucial for keeping students engaged in the organisation.

Interestingly, the study considers whether incentives can influence intrinsic motivation and performance. Where direct incentives make it clear to an individual that a certain behaviour or outcome will lead to a reward, this sets up a strong extrinsic incentive to perform. Intrinsic motivators are difficult to determine because it is no longer the sole driver towards performance (Cerasoli et al., 2014). However, where the incentives are less clear, or there is no direct link that a certain behaviour or outcome will result in an incentive, intrinsic motivation becomes a better predictor, because it is the only functional driver of performance. Equally, where extrinsic incentives were present but not made explicitly clear to an individual (for example, financial reward for winning a medal at the Olympics), intrinsic motivation was a better predictor of performance because the rewards held little motivational leverage (Cerasoli et al., 2014).

This means that clear extrinsic incentives can be implemented by ITKD to support the development of competency, relatedness, and autonomy in youth who are at a key developmental stage, particularly if the rewards are tangible and explicit, for example growing relationships with other seniors, decision-making over club direction, and teaching responsibilities.

This is critical for two reasons; firstly, this enables a strategy to bridge the gap between junior black belts who are largely driven by a clear competency goal through to adulthood where they are more likely to continue pursuing Tae Kwon-Do because they are driven by their own internal motivation. Secondly, increasing the rewards and making the benefits of Tae Kwon-Do more clear will in turn help develop intrinsic motivation and satisfaction from the martial art.

### Mental health and Motivation

When considering how to build and develop motivation in our junior black belts, it is important to consider some of the negative impacts young people face which can be a severe barrier to motivation. In understanding the drivers of motivation, it is also critically important to consider the psychological processes that form as a result of sport and high levels of achievement, as these often co-exist (Kingston et al., 2013).

Mental health in young people, particularly in those that compete at an elite level is critical, particularly as New Zealand has some of the highest rates of mental health issues in young people compared to other OECD countries (OECD, 2018). While martial arts can facilitate the development of self-confidence, it can also create stress and anxiety. Cognitive anxiety can manifest itself in worry, concern and negative self-evaluation, and somatic anxiety can manifest itself as physiological responses to stress such as, sweaty palms or butterflies (Kingston et al., 2013). This can be incredibly harmful to mental well-being. As students' grade, and compete at tournaments for example, it is a natural response to feel cognitive and somatic anxiety, however, if students are not given the right tools to learn how to manage this, it can lead to deterioration of performance over time, cripple

mental resilience, and instigate a feeling of failure as students become unable to look past their failures for their learnings. Conversely, if students are given the correct psychological skills to control the response to anxiety such as thought stopping and goal setting, this can reduce the intensity of anxiety and lead to more positive outcomes (Kingston et al., 2013).

Understanding the relationship between cognitive and somatic anxiety and motivation will be critical for ensuring that instructors and the organisation understand the mental development and wellbeing of its younger members. As instructors, we teach 75% of the membership base at a time where mental and psychological development is critical (Kingston et al., 2013, OECD, 2018). It is important for instructors to be able to recognise students who do not respond well under stress and anxiety and guide them towards different strategies that help them learn and develop. While we focus on the teachings of the tenets of Tae Kwon-Do, we must also focus on hauora and the wellbeing of our students too.

At the core of anxiety comes pressure. The pressure of sports and how it effects mental health has been at the centre of focus following the recent passing of cyclist Olivia Podmore, and gymnast Simone Biles' decision to withdraw from events at the Tokyo Olympics.

Within Tae Kwon-Do, New Zealand has had an incredibly strong focus on international competition in the last decade. As the host country of the 2011 World Champs, up until the previous 2019 World Champs in Germany and online World Champs in 2021, New Zealand has sent a significant contingent of incredibly high performing athletes which has been a large motivator for teens due to the larger number of spots per division for juniors. The high standard set by our team coaches and High-Performance committee has meant that an intensive training regimen is set for all team members, who upon returning following the World Champs can be quite physically and emotionally tired or burnt out. Particularly among our juniors, the abrupt change to their routines can be overwhelming and at times quite unfulfilling when they are no longer training at the previous intensity prior to competition (Lodewyk & Pybus, 2013).

Additionally, contact sports are considered to promote a higher level of anxiety as it requires a strong cognitive and physiological response (Kingston et al., 2013). Where cognitive anxiety is dominant, this can create a negative linear relationship with performance, meaning a much poorer performance. The anxiety of having to achieve all the time can lead to mental burn-out, particularly amongst junior black belts who are primarily motivated achievement. This mental burnout, if not managed properly, can be detrimental to motivation (Kingston et al., 2013).

Furthermore, combined with the constant need to achieve a level of 'mastery' which comes with the wearing of a black belt, or the selection for the World Champs team, when this is not possible, for example someone gets injured, or does not make the team again, this can also result in a significant lack of motivation once that major source is no longer there.

Injuries are a prime example of the necessity for ITKD to consider a range of alternative pathways for youth that focus on attaining goals other than competence and mastery. Then, when junior black belts are faced with challenges that prevent them from being motivated by their usual channels, there are alternative roles within the organisation that they do have to continue with. When students face major injuries, particularly those that require significant rehabilitation such as ligament tears, suddenly trainings, gradings and tournaments become unattainable goals. By diversifying pathways, this enables students to remain meaningfully engaged in the organisation without feeling demoralised because they are unable to participate in the physical aspects of Tae Kwon-Do, thus, achieving the sense of mastery but fulfilling the relatedness and autonomy elements of motivation. This way, people

can be protected from the loss of motivation that comes with injuries, as other supports will be available to enable them to continue to engage in the sport and feel satisfied.

# **Alternative Pathways**

Alternative pathways can look like any opportunity that the organisation dreams to develop, however, it is important that a separate youth strategy be developed. Some key opportunities which build on existing concepts include the establishment of youth governance. UN Youth New Zealand is the largest youth charity organisation in New Zealand. It promotes civics education in schools, however, most notably it is run entirely by young people. From its governance structure, through to its events committees, all roles are filled by high school and university students, fostering development through mentoring programmes. Event committees are signed on for roughly 6 months before an event into different roles, often splitting the organisation into 4 key areas.

ITKD already has existing governance and committees in place, such as TAG and the Standards and Discipline Committee. If current members were to mentor younger students in these roles, and the organisation were to create similar youth governance structures, this would enable another pathway for our junior black belts to remain meaningfully engaged in the organisation. This also creates a continuity system, where older members step down from roles, there are younger students who are equipped with the skills to enable them to effectively continue the same job. It is critical to get a proper youth perspective on the governance and direction of the organisation. With 75% of the membership base under the age of 18, there needs to be better representation of the age group present with the decision-makers. A mentorship will enable the influence of a youth voice, without requiring the establishment of separate youth governance system. However, in future planning, this is something that the organisation could consider should the membership continue to grow.

Likewise, often the same group of people organise the various Tae Kwon-Do tournaments. Creating event groups and offering students the opportunity to understand how to organise various aspects of the tournament such as the draw, without overwhelmingly being in charge of organising the whole event is an easy implementation that the organisation can do without requiring significant change to the status quo. This mentorship equips and enables junior students to understand what is exactly required to organise a tournament and allows for a larger pool of volunteers to be upskilled. The side benefit is this mentorship also fosters other desirable skills, such as written and verbal communication, working to deadlines and fostering relationships with others (venues, catering etc.). This is particularly beneficial in preparing our junior black belts for challenges that they may experience outside of Tae Kwon-Do, such as applying for jobs, sitting exams, preparing for university.

Other alternative pathways can be as simple as amending the current opportunities we have and making them more accessible to a wider audience of students. Currently, students sit the instructor's induction course and plan 3 lessons. They are then expected to continue assisting in club for 6 months before sitting their first dan grading. Beyond this, there are few resources that actually teach our students how to be teachers. Skills such as class management, talking with parents, being confident in teaching adult students and teaching a large group of kids can be very overwhelming for our junior black belts, particularly if it is a new experience. Stronger dedicated resources that can be accessed by junior black belts will help immensely in ensuring students feel equipped to teach, rather than feeling they need to teach because they are now a dan rank or have been asked to by their instructor. This will also ensure that students feel they are supported in learning how to teach others. This also supports the competency and mastery aspect of motivation, once they are able to feel they are doing a good job of teaching, they will enjoy it more and receive that reward of helping others.

# Conclusion

The rising popularity of Tae Kwon-Do has meant that more students are entering the organisation than ever. With a significant proportion of the membership base under the age of 18, it is increasingly important that the organisation continue to find different ways to increase the retention of our junior black belts, particularly as they age into young adulthood. This essay has explored the Self Determination Theory and Cerasoli, Nicklin and Ford's (2014) study to apply psychological principles to better understand not only what drives motivation, but also how this motivation affects subsequent performance, including the barriers to motivation such as mental health.

The development of alternative pathways for junior black belts will provide a wider range of opportunities that allow students to remain meaningfully engaged in the organisation, allowing students to continue developing their skills learnt rising through the coloured belt ranks. The development of a youth specific strategy will only serve to further strengthen the organisation's commitment to youth and focus on alleviating the growing divide between the under 18 and over 35 age groups.

The significant growth of the junior membership over the last decade illustrates a clear interest to learn the art. Equipping and enabling junior black belts to diversify and grow their skills can only be beneficial to the organisation, for the present, and for the future of ITKD.

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