

Another Tricky Triad: Test, Competition and Betterness

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Another Tricky Triad: Test, Competition and Betterness

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Resumen

Bernard Suits etiquetó y discutió a los juegos y al deporte como una tríada engañosa. El objetivo de este trabajo es elaborar otro trío conceptual relacionado con los deportes: la prueba, la competencia y la mejora. Mi elaboración se basa en una distinción entre el nivel estructural y psicológico del deporte y las actividades relacionadas. Mi interés se centa en cómo el nivel estructural contribuye a nuestra comprensión de la prueba, la competencia y la mejora. Sin embargo, el nivel estructural y psicológico no son necesariamente totalmente independientes, y mi análisis incluye también una discusión sobre el nivel psicológico. Utilizaré la concepción de R. Scott Kretchmar sobre la competición en mi análisis, aunque me desvío en parte de sus ideas. Principalmente sigo a Kretchmar cuando sugiero que una prueba se refiere al desafío de completar una tarea cuando hay suficiente pero no demasiada incertidumbre sobre si se puede completar la tarea. Además, afirmo que una competencia es un marco que permite que exista la mejoría. Por mejora me refiero al orden jerárquico de unidades que se comparan. Finalmente, describo las dependencias conceptuales entre los conceptos de prueba, competencia y mejora.

Palabras claves: competición, prueba, marathon, R. Scott Kretchmar, test.

Abstract

Bernard Suits famously labelled games, play and sport as a tricky triad and discussed these concepts philosophically. The aim of this paper is to elaborate another interesting conceptual trio related to sports: namely test, competition, and betterness. My elaboration is based on a distinction between structural and psychological level of sport and related activities. I am interested in how the structural level contributes to our understanding of test, competition, and betterness. However, the structural and psychological level are not necessarily fully independent, and my analysis includes also discussion about the psychological level. I will utilise R. Scott Kretchmar's view of test and contest in my analysis, although I partly deviate from his thoughts. I mainly follow Kretchmar when I suggest that a test refers to the challenge of completing a task when there is enough but not too much uncertainty about whether one can complete the task. In addition, I claim that a competition is a framework that enables betterness to exist. By betterness, I mean the hierarchical order of units that are being compared. Finally, I describe conceptual dependencies between the concepts of test, competition, and betterness.

Key words: competition, contest, marathon, R. Scott Kretchmar, test

1. Introduction

Bernard Suits (1988) discusses the relations of games, play and sport, or what he calls tricky triad, in his frequently cited paper Tricky Triad: Games, Play, and Sport (see for instance Berman 2013; Meier 1988; Schneider 2001). I focus on another interesting trio that is relevant for understanding of sport and related activities: test, competition, and betterness. Many authors have addressed one or several of these three concepts although they may have used other expressions (see Dixon 1999; Kretchmar 2014; Royce 2017). This paper complements the existing literature by providing a structurally focused analysis on these three concepts and their relations.

Test, competition and betterness are conceptually very close to each other, and they may sometimes cause confusion, as the following marathon example illustrates: Joe's goal is to run a marathon under 6 hours. He participates in a marathon race, and finishes the distance, 42 195 metres, in 5 hours 50 minutes as exhausted but happy. Joe's placement is 1555th among 1617 finishers. During the last 5 kilometres, he was able to pass several participants, which made him even more proud of his performance. Was Joe involved in a in a test or in a competition? I will address this example later in this paper, but I begin by setting the background of my analysis.

Sport covers a wide range of activities. We may think of 100-metre Olympic final in which Usain Bolts sets a new world record or school kids' football match. In addition, there are many activities that cause discussion whether they are sport, such a game of chess. Various spheres of life also intersect in the world of sport, like education, working life and hobbies.

The multitude, variance and vagueness connected to sport support an idea that there are different levels that contribute to our understanding of it. Two levels of understanding are especially relevant for this paper: One is structural, impersonal, universal, rule-based, mechanical or abstract level. Another level is that of psychology, mind, experience and feeling. Think about a 100-metre footrace in Olympics. If we focus on the motives of the contestants, then we are interested in the psychological level. Instead, if we are pondering what would be preserved from the running event if we would replace the athletes by robots designed to run, then we looked at sport primarily at the structural level. The structural and

psychological level both play a significant role in sport. Further, these two levels are not necessarily fully independent but may be interconnected.

The distinction between structural and psychological level forms a theoretical background of my analysis on test, competition and betterness. I am especially interested in how the structural level contributes to our understanding of these concepts and their relations. It seems that we can analyse competition separately on the structural level and on the psychological level. The same approach seems to apply also to betterness. I will thus focus on the structural level when I analyse competition and betterness. However, test appears to be a phenomenon that intertwines the structural and psychological level. Therefore, when I analyse test, my discussion pierces both levels.

It is important to grab that my goal is not to give an all-encompassing definitions of test, competition and betterness. Instead, I want to understand what kind of phenomena they are on the structural level (or when the two levels are intertwined). My views may therefore sound unintuitive if one is expecting to find a general definition or characterisation of these concepts in my paper. Only my view of test, which I largely owe to R. Scott Kretchmar, is close to this kind of general view because it unites both structural and psychological level.

I will proceed as follows. First, I will elaborate R. Scott Kretchmar's view of a test that he presented in his famous paper, 'From test to contest. An analysis of two kinds of counterpoints in sport', published originally in 1975. Then, I will introduce Kretchmar's view of a contest and demonstrate its weaknesses on the structural level. Before I can suggest my own development, I will introduce the concept of betterness. After that, I am able to state my definition of competition on the structural level. Then, I will discuss how test, competition, and betterness are conceptually related to each other. Last, I summarise my analysis and address the case of Joe's marathon run.

2. Test

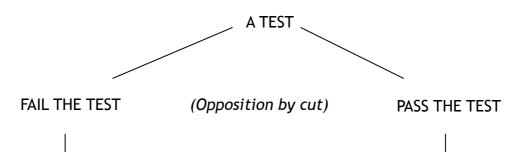
Kretchmar defines a test as an 'ambiguous phenomenon which is seen as both impregnable and vulnerable' (Kretchmar 2010, 101; see also Kretchmar & Elcombe 2007). His view is easier to grasp if it is put in this way: a test refers to the challenge of completing a task when there is enough but not too much uncertainty whether one can complete the task. For instance, a mountain can pose a test if it is uncertain whether one can reach the summit

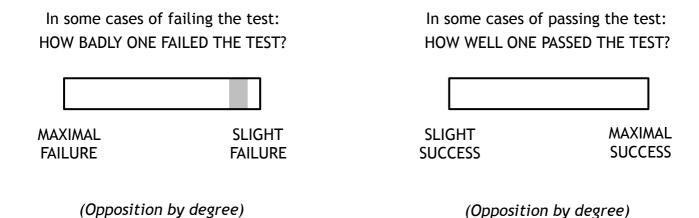
¹ J. Huizinga (1949, 10, 37–38, 47–48, 51) also refers to uncertainty when he discusses play in his famous book *Homo Ludens*.

(Kretchmar 2010, 101–103). Likewise, if one participates in a marathon race or plays a game of patience (solitaire), she has typically entered a test. In a marathon, one tries to run the distance of 42 195 metres and, in patience, one attempts to solve the puzzle set by the cards. One may also try to complete these tasks in a specific time frame, such as to run marathon under 4 hours.

Kretchmar argues that a test is characterised by the opposition by cut: one will either fail or pass the test. The cut exists between vulnerability (completing the task) and impregnability (failing to complete the task). For instance, one can either reach the summit of a mountain or fail to reach it. However, there may be an opposition by degree on one or both sides of the cut. That is, one can, for example, fail a test by different degrees. A mountain climber may climb halfway in her first try and, on her second try, she may climb three quarters of the distance, but both attempts are failures to reach the summit (Kretchmar 2010, 101–103).

It seems that the opposition by cut and the opposition by degree as related to a test could be portrayed as follows:

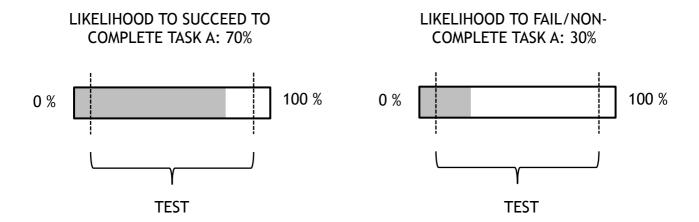




Picture 1. A test is characterised by the opposition by cut. However, the opposition by degree may exist on one or both sides of the cut. The grey line refers to a case in which a test taker failed the test, but only slightly. For instance, she tried to finish a marathon under 4 hours but had a final time of 4 hours and 5 minutes.

It is important to grasp the difference between a test and a task, or a 'specific, unambiguous act', as Kretchmar puts it (see Kretchmar 2010, 103). A task refers to executing an act, like climbing a mountain or running 42 195 metres. A test, on the other hand, refers to the quest for completing a task when there is a proper amount of uncertainty whether one can do it. In other words, the existence of a task is the requirement for a test. Kretchmar writes: 'Without the presence of this specific project, there could be no uncertainty about whether or not it can be done' (Kretchmar 2010, 103).

A test is built upon a task through the presence of the right amount of uncertainty. According to Kretchmar, nothing would be tested if the task were too easy or too difficult (Kretchmar 2010, 102). If the likelihood of completing a task is more than minimal and less than maximal, then a test can take place. For instance, if an individual X has a 70 per cent likelihood of completing a task A, then the task A poses a test for her. Instead, running a 100-metre dash is not a test for a healthy male elite sprinter; it is only a task. Running a 100-metre dash under 10 seconds, again, typically represents a test for a healthy male elite sprinter. The likelihood of completing a task is interconnected to the likelihood of failing a task (or non-completing a task). That is, when there is a 70 per cent likelihood that X will complete a task A, then there is a 30 per cent likelihood that X will fail the task A. Picture 2 demonstrates graphically how uncertainty about completing a task generates a test:



Picture 2. The right amount of uncertainty of completing a task creates a test.

Sometimes, the test may dissolve before the task is completed. If a mountain climber has only half a mile of easy path to the summit, the uncertainty may have been reduced so greatly that no test remains (Kretchmar 2010, 103). Similarly, a person who has 50 metres left to finish the marathon is likely to feel that she has passed the test although she has not yet completed the task.

A noteworthy difference between test and task concerns the oppositions attached to them. As you will recall, tests are characterised by the opposition by cut. In contrast, some tasks are characterised by the opposition by cut and some tasks by the opposition by degree. For instance, turning on a computer is a task characterised by the opposition by cut. One can either turn on a computer or not turn it on. One cannot turn it on partly. In contrast, the task of placing books onto a bookshelf from a removal box is characterised by the opposition by degree. One can place half of the books or three quarters of the books on the shelf. When a task is characterised by the opposition by degree, then the likelihood of completing the task refers to the likelihood of fully completing the task (for instance, putting all the books on the shelf).²

I will classify four types of test later in this paper. To understand these different types of tests, one must first understand the concept of competition. I start by introducing Kretchmar's

² It seems that it would be possible to argue that all tasks are characterised by the opposition by cut. For instance, perhaps the task of putting books from a removal box onto a bookshelf is, after all, characterised by the opposition by cut. The rationale would be that one can either put all the books from the removal box onto the shelf or then fail to put all of them. There is no degree of opposition in respect of completing the task although there is a degree in respect of how many books one puts on the shelf. I will not, however, try to settle this issue here, since my analysis can be adapted to both outcomes.

notion of contest.

3. Contest

Kretchmar suggests that if several persons are taking part in the same test, then a (sport) contest can exist: 'The transition from test to contest . . . is simply finding someone with whom one can share a test' (Kretchmar 2010, 103). Kretchmar adds that a contest requires also a testing family, for instance a group of similar swimmers and a commitment to attempt to better one another's performances (Kretchmar 2010, 103–105).

Kretchmar assumes apparently that a contest is built on a shared test, but this assumption is problematic for three reasons. First, Kretchmar does not give a concrete example of how several persons can share a test. Second, the idea that contestants can share a test existing prior to the contest would apply only in sports in which athletic performance can be executed independently without others, as in the 100-metre dash (see Hämäläinen 2013, 381–382). One can run 100 metres without other competitors and then do it again with other contestants. The idea does not apply in sports in which an opponent is already required in the first place, as in football. One cannot first play football alone and then add the opponents to the field. In football, there is no meaningful test without the contest and opponents.

Third, even in sports in which athletic performance can be executed independently, the participants of a contest do not necessarily share an independent test because the participants may only try to beat other competitors and not care about, for instance, running a specific time. This is a common phenomenon in middle and long-distance running events in the Olympics and World Championships where the pace might be slow until the last lap. Consequently, the only shared test in these kinds of competitions may be that of beating the opponent, which I will discuss later in this paper.

Kretchmar's view can be salvaged from the first and third criticism if we assume that he actually meant that the participants of a contest are sharing a task, not a test. In running a race, the task is to travel the appointed distance. This interpretation is supported by the following quotation:

A minimal two persons must be doing the same kind of thing for valid comparisons of success to be made. It would sound strange for a person to claim a victory in a running race to the store even though his adversary used a car or, worse yet, drove to another place. (Kretchmar 2010, 104)

However, the assumption that Kretchmar used language in an uninformative way does not protect his view against the second criticism.

Kretchmar attempts to further elaborate the difference between a test and a contest by arguing that a contest is characterised by the opposition by degree whereas a test is characterised by the opposition by cut. In a contest, there is a gradual scale that separates winner and loser, and the difference between them can be tiny or huge (Kretchmar 2010, 101–103). For instance, Swedish skier Thomas Wassberg won the gold medal and beat Finnish Juha Mieto with the margin of 0.01 seconds in the 15-kilometre cross country skiing race at the Lake Placid Winter Olympics in 1980.

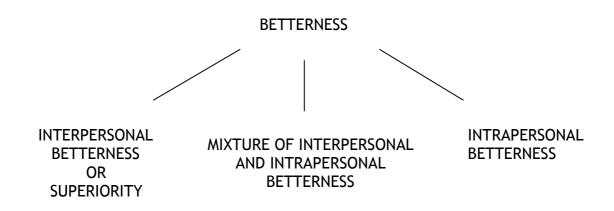
Kretchmar's elaboration is not adequate because the opposition by cut exists also in a contest, not merely in a test. I admit that Kretchmar is right that the opposition by degree exists in a contest when we are comparing the results: the difference between 41 minutes 57.63 seconds and 41 minutes 57.64 seconds is surely that of scale. However, the difference related to the superiority of athletes, the hierarchical order of these results, is the opposition by cut, not that of scale. Had the margin between Wassberg and Mieto been 1 minute or even 1 hour, Wassberg would have still won.

I conclude that Kretchmar does not succeed in explaining a contest in structurally satisfying way by referring to the distinction between a test and a contest because his distinction is not structurally accurate enough. I will replace his term contest with the term of competition and focus primarily on the structural level. Before I can explain what I mean by competition, I have to discuss the concept of betterness since I use it in my explanation.

4. Betterness

Betterness is a widely discussed topic in the philosophy of sport literature although the term betterness has been rarely used. More popular term has been (athletic) superiority. Writers have frequently looked into some focused questions related to betterness, like running up the score (see Dixon 2000; Dixon 1998; Dixon 1992; Feezell 1999; Hardman et al. 1996; Sailors 2010), but there are also writers who have tried to examine betterness in a more extensive or general way (see Dixon 1999; Hämäläinen 2015; Kretchmar 2010; Kretchmar and Elcombe 1997; Loland 2002). This analysis elaborates and extends my earlier thoughts about betterness (see Hämäläinen 2015).

Betterness refers to the hierarchical order of units that are being compared. There are three forms of betterness: interpersonal, intrapersonal, and a mixture of the two previous.³ Picture 3 illustrates the three forms of betterness:



Picture 3. Three forms of betterness.

Interpersonal betterness, or superiority, refers to the hierarchical order of different athletes or teams. Interpersonal betterness may instantiate, for example, in a football match between two teams, or in a marathon race between two participants. Furthermore, interpersonal betterness is under my consideration if I am interested in whether I can finish a game of patience faster than my friend.

Intrapersonal betterness refers to the hierarchical order of the temporal stages of the same athlete or team. If an individual has finished more than one marathon, she can compare

³ Instead of the terms *interpersonal* and *intrapersonal*, terms *other-regarding* and *self-regarding* or *inter-unit* and *intra-unit* could be used.

in which of those she achieved the best time. In patience, intrapersonal betterness occurs if one is comparing whether one can solve the puzzle faster than earlier.

Interpersonal and intrapersonal betterness are intertwined in cases in which we are comparing the performances of the athletes or teams against the background of their own level. For instance, individual X wins an 800-metre footrace with the time of 1.44.06, while his record is 1.43.06 (see Table 1). Individual Y is second in the race and sets a personal record of 1.44.25. His previous record was 1.46.02. Y was better according to the mixture of interpersonal and intrapersonal betterness because he improved his record and X did not. To put the idea of intertwined betterness more theoretically: we are comparing interpersonally intrapersonal comparisons.

	Record before the current race	Time in current race	Intrapersonal comparison
individual X	1.43.06	1.44.06	+ 1.00
individual Y	1.46.02	1.44.25	- 1.77
Interpersonal comparison	X is better, margin: - 2.92	X is better, margin: - 0.19	Y is better, margin: - 2.77

Table 1. An illustration of the mixture of interpersonal and intrapersonal betterness in an 800-metre footrace.

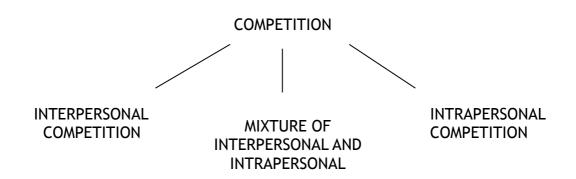
Interpersonal betterness and intrapersonal betterness are conceptually distinguishable, but they often occur together. In the men's 100-metre final in the 2009 Berlin Track and Field World Championship, Usain Bolt demonstrated interpersonal betterness over Tyson Gay because Bolt won with the time of 9.58 s and Tyson Gay was second with time of 9.71 s. Intrapersonal betterness also occurred in that event as they both improved their personal records: Usain Bolt's previous personal record was 9.69 s and Tyson Gay's personal record was 9.77 s. Furthermore, a mixture of interpersonal and intrapersonal betterness took place in the Berlin event, since the co-occurrence of interpersonal betterness and intrapersonal betterness implies the occurrence of their mixture form. Bolt was better in the mixture form

of betterness because he improved his record by 0.11 s whereas Gay improved his record by 0.08 s. This Bolt versus Gay example finishes my elaboration of betterness, and I will be able to discuss competition.

4. Competition

My view of competition is based on the work of Nicholas Dixon (1999) and Sigmund Loland (2002). Dixon proposes that a central purpose of competitive sport is to determine which team or player is superior (Dixon 1999, 10). Loland argues in a similar way that 'the [structural] goal of sport competitions is to measure, compare and rank two or more competitors according to athletic performance' (Loland 2002, 10). Both Dixon and Loland recognise the aim of setting the hierarchical order of athletes or teams in a sport competition.

I argue that competition refers to a framework that enables betterness to instantiate. Analogously with betterness, there are three types of competition: interpersonal competition, intrapersonal competition, and a mixture of the two. Picture 4 illustrates the different types of competition:



Picture 4. Three types of competition.

Interpersonal competition refers to a framework that enables interpersonal betterness to instantiate. In other words, it provides a possibility to determine the superior team or athlete. For instance, a 100-metre dash provides a possibility to find out the fastest runner of the race. Also, a football match that ends in a draw, like a Premier League match may end, provided a possibility to determine the superior team: both teams had the logical possibility to score

more goals than the opponent. In addition, the game of patience represents interpersonal competition if the purpose is to solve the puzzle faster than my friend. A requirement for an interpersonal competition is that at least two separate athletes or teams can participate.

Intrapersonal competition refers to a framework that enables intrapersonal betterness to instantiate. In other words, it provides an athlete or team a possibility to improve its previous performance. For instance, an intrapersonal competition exists when a marathon runner is running her second marathon. Intrapersonal competition requires at least two temporal stages of the same athlete or team.

The idea of intrapersonal competition, or self-competition, is not supported by all, and several authors have discussed whether it is possible (Howe 2008; Hurych 2009; Krein 2007; Kretchmar 2014). I cannot engage this discussion here, but I will briefly outline my justification for supporting the idea of self-competition: My aim is to explore competition on the structural level, and this level seems contain the idea of self-competition.

The mixture of interpersonal and intrapersonal competition refers to a framework that enables a mixture of interpersonal and intrapersonal betterness to instantiate. In other words, it refers to determining the superior team or athlete based on how they performed with respect to their previous level. For instance, mixed competition lies within our focus when we are interested in which team of a football match played better in respect of its previous level.

Analogously with betterness, interpersonal competition and intrapersonal competition are conceptually separate, but often occur together in real life. For instance, the men's 100-metre final in the 2009 Berlin Track and Field World Championships instantiated interpersonal competition because it provided the possibility to find out the best runner among the participants in that occasion. It also instantiated intrapersonal competition because we were able to compare the participants' performances on that evening to their earlier performances. Furthermore, a mixture of interpersonal and intrapersonal competition took place in the Berlin final because this mixture form of competition is conceptually dependent on its constituent parts and instantiates always when they instantiate.

Competition is an everyday expression with rich usage, but it is crucial to remember that I analyse the concept of competition primarily on the structural level. The structural level does not capture common psychological features that occur in competitions, such as outperforming the opponent (see Kretchmar 2014). If one does not grab this feature of my

analysis, or more generally my distinction between the structural and psychological level, my view may sound unintuitive. I hence discuss three cases to underline that I am not providing an all-encompassing definition of competition, but a definition of competition from a specific perspective, that is, primarily from the perspective of the structural level. Additionally, the cases that I discuss reveal more fine-grained conceptual structure of competitions.

First, imagine a 100-metre running race in which contestants do not care about winning and have no desire to beat each other. They run the distance, for instance, to please the audience or because they are threatened by violence against their family if they do not run. Hence, it seems there is no competition between them on the psychological level, or it is at least minimal. Nevertheless, one can ask whether these athletes took part in a competition on the structural level.

Second, imagine that I have a colleague who lives in the same building as me. We often leave from the work at the same time and cycle home together and chat relaxed at the same time. Yesterday, I reached the home building a bit before him. It seems rather clear that there was no competition between us on the psychological level about who will reach the building first, but were we involved in a 'cycling-home competition' on the structural level?

Third, a class of 12-year-old pupils is taking a math exam in the school. Teacher marks the exams on the scale from 1 to 10. The number 1 is the worst grade and the number 10 is the best. Pupils are trying to get as high score as they can. Was there a competition going on in the exam?

To address the three above cases, we have to look again at my definition of competition. I hold that competition, on the structural level, is a framework that enables betterness to instantiate. By the framework, I refer to the existence of (1) an end that one can pursue and (2) means that dictate how one can pursue that end. For instance, in the interpersonal competition of 100-metre footrace, the end is to run the 100-metre dash faster than other participants do. The available means are restricted by the rules, which state for instance, that one cannot take a false start. My understanding of the end and the means is very close to (if not fully identical) what Bernard Suits has called prelusory goal and lusory means (Suits 2010, 28). Terms competitive end and competitive means would be also illustrative (see Hämäläinen 2015, 16–17).

There are two conflicting points of view about how to recognise or discover the existence of the end and restricting means in an individual case: first, a positivist, external or outsider's viewpoint and second, inbuilt, integral or insider's viewpoint. According to the positivist viewpoint, competitive end and competitive means exist when the following three conditions are met:

- (1) Two or more performances differ or could differ from each other on the same dimension or scale.4
- (2) Either greater or lesser extent on the dimension or on the scale for the performances is preferred.
 - (3) The performances conform to the same or at least similar restrictions.⁵

The first example, 100-metre race of sprinters with no motivation for victory, fulfils all the three conditions. First, athletes' performances differ in time: say, one athlete ran the distance in 11.45 seconds whereas another athlete in 11.88 seconds. Second, the less time an athlete spends for running the dash, the better it is in this event. Third, we can assume that all participants followed the rules of the race. As a conclusion, there was a competition on the structural level from the positivist viewpoint.

It is not fully clear whether the example about the cycling-home fulfils the three conditions. The first condition is at least clearly met: I arrived first to the home building and thus our cycling trips vary in the time spent. The second condition causes more confusion, but at least in terms of general efficiency, shorter time from work to home is usually preferred over longer. The third condition is satisfied if we assume that both of us obeyed the traffic

⁴ The fulfilment of the first condition often means that the performances can or could be measured in the same way. When two persons are swimming 50 metres in a swimming pool, their performances differ (or could differ) in the dimension of time. If a third person watches their swimming and has a stopwatch, then this third person can measure how long it took for each of them to complete the distance.

⁵ Sometimes, it may be unclear to which restrictions the performances exactly conform: It is possible that there are two very close sets of restrictions, and the performances conform to one set but not to the other. For instance, this discrepancy could happen in sport with formal rules and a separate enforcer of the rules. Performances may then conform to the restrictions set by the enforcer but not to the restrictions set by the formal rules. Imagine a 100-metre footrace in which one athlete has manipulated the sensors for recognising false starts. Due to the manipulation, she is able to take false start without being caught by the jury of the event. Consequently, her performance in this race does not conform to restriction set by the formal rules, because according to the rules, the false starter should have been disqualified. However, all the performances conform to the restrictions set by the enforcer because the enforcer, namely jury, did not recognise the offence. Please note that this brief remark about close sets of restrictions is rather illustrative than complete: It belongs to the larger philosophical discussion about formalism (see for instance Berman 2011; D'Agostino 1981; Morgan 2004; Vossen 2014), and, I cannot delve deeper into this topic here.

rules. It might thus be possible to claim that 'cycling-home' competition existed on the structural level according to positivist viewpoint.

In my third case, pupils were taking an exam. Again, this case appears to fulfil all the three conditions. First, their performances differ in respect of their grades. Second, higher grades are preferable to lower grades. Third, we can assume that all pupils abided the same rules: for instance, no one took their mother to do the exam on their behalf. Therefore, the exam represents competition on the structural level from the positivist perspective.

The second, inbuilt, integral or insider's viewpoint shares the three conditions of the positivist approach, but, importantly, the integral viewpoint adds a fourth condition. According to the integral viewpoint, there has to be also some sort of (explicit or tacit) statement, pronouncement, agreement, formulation or understanding about the competitive end and the competitive means. In other words, the end and means have to be an integral part of the performances.

The first example, that of sprinters without motivation for victory, seems to satisfy the fourth condition. The rules of the 100-metre footrace are largely a pronouncement of the competitive end and competitive means of that sport. Therefore, the race represents competition on the structural level also from the integral perspective. In contrast, the cycling-home case does not reveal any relevant statement about the competitive end. Neither me nor my colleague made such a statement. The case is not an instance of competition on the structural level according to the integral viewpoint. Lastly, the school exam appears to allow the fulfilment of the fourth condition, at least in some contexts. We can most likely find societies or schools that are built on the idea that the point of the school is not merely to help children to acquire knowledge and new skills. The point is also to prepare them for later qualifying for scarce places in top universities, in other institutions or in job market. In other words, there seems to be at least a tacit understanding about the goal of getting higher grade than other pupils. This understanding is more explicit, for instance, in occasions in which the pupils with the best grades are awarded by some prises. Therefore, an exam may stand as a competition on the structural level also from the integral perspective.

After elaborating competition on the structural level⁶, I will discuss the relations between the three central concepts of this paper.

5. Test, competition, and betterness put together

Test, competition, and betterness form eight reasonable combinations altogether from the perspective of conceptual connectedness. I have summarised them in Table 2. There are four main variants and each of them is divided into A and B.

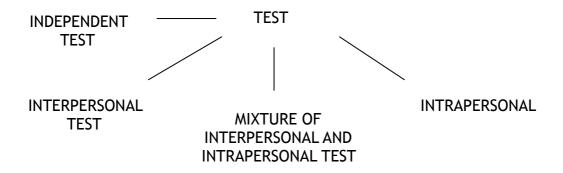
	Example	Test	Competition	Betterness
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⁶ According to a counterargument, more accurate expression for what I call 'competition on the structural level' would be something like 'precondition of competition' or 'competitive framework'. This counterargument, if a counterargument at all, acknowledges my conceptual analysis. However, it proposes that I should use another expression instead of 'competition on the structural level' so that my readers would grasp my stance better. This suggestion does not sound a bad idea if another expression would really help readers to understand my view more clearly. After all, my goal is a conceptual clarification, which I have conducted roughly in the following way: I started by thinking certain words and expressions, in this case test, competition and betterness. As a result of this thinking, I had various concepts in my mind. Next, I tried to elect the most promising concepts for the purposes of this paper. I elaborated and explicated these concepts by using logical thinking, argumentation, counterexamples and intuition. I arrived at definitions that I have presented in this paper. However, the names that I use to refer to these concepts are not fixed, and it is possible to change these names. Therefore, I am ready to consider such expressions as 'precondition of competition' or 'competitive framework'. Naturally, we should not change the names of the concepts constantly or too hastily. On the other, hand if one believes that the names of the concepts may lead to personal biases in conceptual analyses.

1.A	Can I run 42 195 metres?	independent	no competition	no betterness
1.B	I take a book from a bookshelf.	no test	no competition	no betterness
2.A	Can I beat my opponent in a marathon race?	interpersonal	interpersonal	interpersonal
2.B	It is highly likely that I will beat my opponent in a marathon race.	no test	interpersonal	interpersonal
3.A	Can I improve my personal record of a marathon?	intrapersonal	intrapersonal	intrapersonal
3.B	It is highly likely that I will set a personal marathon record.	no test	intrapersonal	intrapersonal
4.A	Can I improve my record more than my opponent?	mixture of interpersonal and intrapersonal	mixture of interpersonal and intrapersonal	mixture of interpersonal and intrapersonal
4.B	It is highly likely that I can improve my record more than my opponent can improve her record.	no test	mixture of interpersonal and intrapersonal	mixture of interpersonal and intrapersonal

Table 2. Eight combinations of test, betterness, and competition from the perspective of conceptual connectedness. Grey colour indicates that a combination includes a test. In the four cases of grey colour, specific test is either conceptually connected to related competition and betterness or there is no conceptually connected competition and test. White colour indicates that a combination does not include a test. In the four cases of white colour, competition and betterness do not generate a related test.

The first observation of the table is that there are four types of test: independent (1.A), interpersonal (2.A), intrapersonal (3.A), and a mixture of interpersonal and intrapersonal (4.A). Except independent test, these types are analogous with competition and betterness. Picture 5 illustrates the four types of test:



Picture 5. Four types of test.

Independent test refers to a challenge in which the task can be executed independently without an opponent, such as running a marathon. Interpersonal test refers to a challenge in which the task is to outperform an opponent. For instance, Germany and Argentina both faced an interpersonal test in the 2014 World Cup final. Intrapersonal test refers to a challenge in which the task is to improve one's earlier performance, for instance to set a new marathon record. Note that an intrapersonal test may simultaneously instantiate an independent test. Running a marathon under 3 hours is an intrapersonal test for a person whose record is 3 hours, but it is also an independent test because running a marathon under 3 hours does not require an opponent. A mixture of interpersonal test and intrapersonal test refers to a challenge in which the task is to perform better in respect of one's own level than an opponent performs in respect of her level. For instance, in a marathon, one can attempt to improve one's record more than other competitors improve theirs.

Independent test, interpersonal test, and intrapersonal test are conceptually distinguishable, but they may occur at the same time in real life. When an individual enters a marathon, she may face all these three types of test at the same time: independent test (running the dedicated distance), interpersonal test (for instance, positioning among 1000 fastest runners), and intrapersonal test (improving her personal record). Unlike competition and betterness, the existence of interpersonal test and intrapersonal test does not necessarily imply the existence of the mixture form of test.

The second remark about the table is that there are three relations between the concepts of test, competition, and betterness. These relations can also be inferred from the definitions and classifications of the three concepts.

First, an independent test is conceptually independent from any type of competition or betterness, since an independent test requires only the right amount of uncertainty about whether one succeeds in executing the task. Kretchmar appears to be talking about an independent test when he states that a test 'is, in principle, independent from competitive acts' (Kretchmar 2010, 103). If I try consecutively to swim 3.8 kilometres, cycle 180.2 kilometres, and run 42.2 kilometres – to complete the ironman triathlon – neither competition nor betterness is needed to create the uncertainty whether I can complete this task. Please note that conceptually unconnected competition may still exist in the same occasion with the (independent) test. For instance, it is possible that there is an independent test of completing the ironman triathlon and there is, in the same occasion, conceptually unconnected interpersonal competition about who finishes the ironman triathlon first. In fact, this seems to be very common scenario.

Second, betterness, and competition can exist without any type of test because competition requires the possibility of a hierarchical order of units being compared, not a challenge. If I ran a 100-metre dash against Usain Bolt, there would be an interpersonal competition and Bolt would most likely establish interpersonal betterness over me, but a test would be lacking. There would not be enough uncertainty about the winner to generate a test.

Third, competition has to occur together with betterness because they are tied together in the definition of competition: competition refers to a framework that enables betterness to exist. For instance, a football match cannot exist without the possibility that a team can score more goals than an opponent.

After elaborating the relations between test, competition, and betterness, I will move to the final step of my analysis: summarising the core of my view and addressing the marathon case that I raised in the introduction.

7. Conclusion

I have performed an analysis on three concepts that play an important role in sport and in other related practices: test, competition, and betterness. A theoretical background of my analysis is the distinction between structural and psychological level, and I have tried to understand the three concepts primarily on the structural level, or at the intersection of the two levels. Significantly, my goal has not been a general or all-encompassing definition of the three concepts.

Test, which lies at the intersection of the structural and psychological level, refers to the challenge of completing a task when there is a proper amount of uncertainty whether one can do it. On the structural level, competition is a framework that enables betterness to exist. Betterness, again on the structural level, refers to the hierarchical order of units that are compared in competition. There are three different types of competition and betterness: interpersonal, intrapersonal, and a mixture of the two. A test can represent any of these three types and an additional fourth type: an independent test.

We can find three dependencies between the concepts of test, competition, and betterness. First, an independent test can exist without betterness and competition. Second, betterness and competition can exist without test. Third, competition has to occur together with betterness.

In the introduction, I described the case of Joe who finished a marathon in 5 hours 50 minutes and placed as 1555th among 1617 finishers. I asked whether he participated in a test or in a competition. My answer is that Joe passed an independent test – he ran the marathon under 6 hours. This test was conceptually independent from any competition, but in real life, an independent test and competition typically do overlap, as in Joe's case. He was involved in interpersonal competition on the structural level. If the race was not his first, he also took part in intrapersonal competition and probably in a mixture of interpersonal and intrapersonal competition since other participants most likely included individuals who were running more than their first marathon. However, if Joe had run the marathon alone, he would not have participated in interpersonal competition nor in the mixture competition.

My analysis has focused on sport and on related activities. Nevertheless, I have addressed one case of school exam, and it would be interesting to explore how my analysis of the three concepts on the structural level (or at the intersection of the structural and psychological level) can be applied to other areas of life besides sport.

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