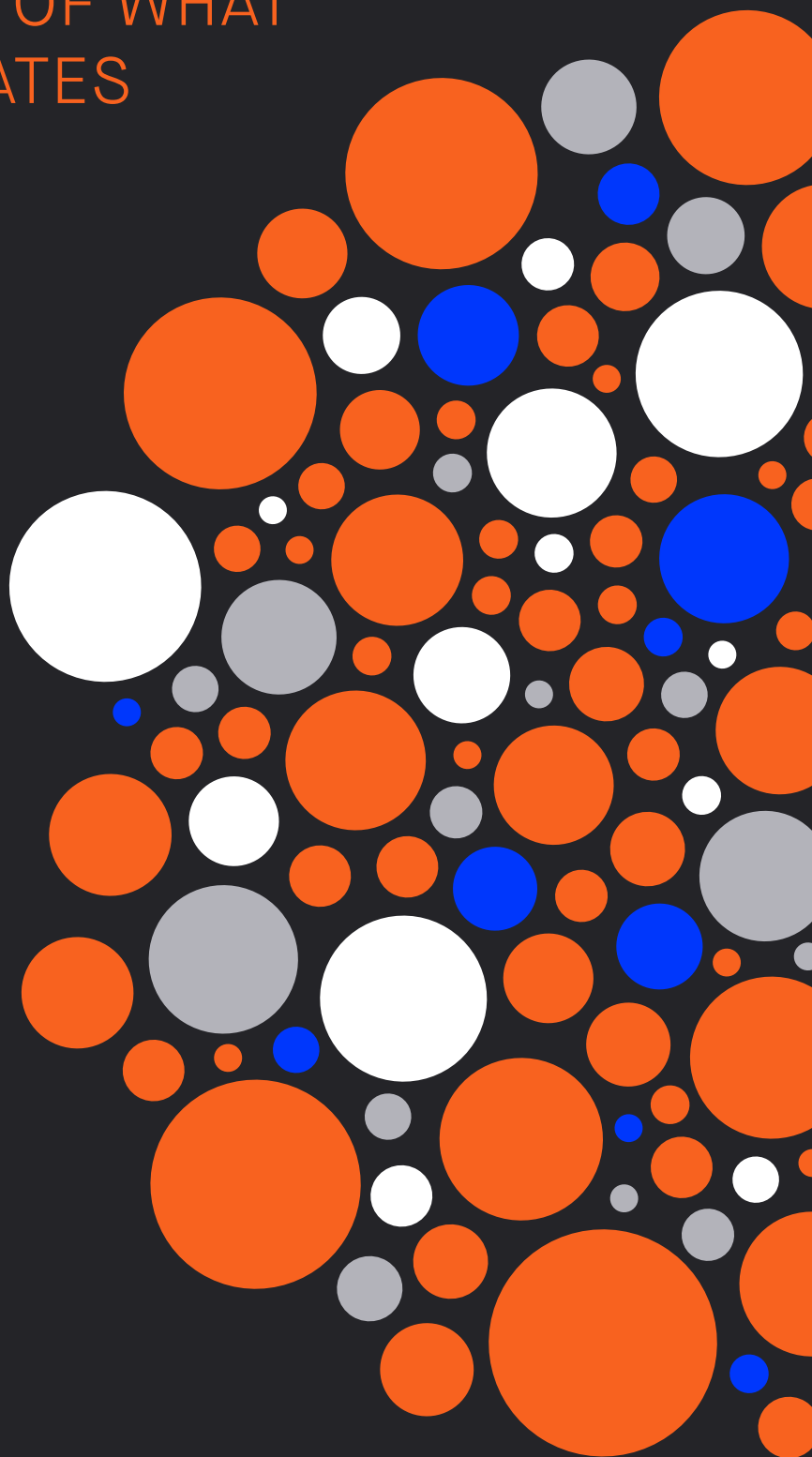


WHY WE RUN

AN EXPLORATION OF WHAT
AND WHO MOTIVATES
US TO RUN

By Blair Evans, Ph.D.



STRAVA

Summary

The report below describes what we learned from over 25,000 runners about why we run. We explore common themes and patterns in motivation across a mosaic of people spanning the globe. To our knowledge, this is the largest study of its kind.

Most notably, we define five runner types and—when using a person’s type—are able to predict how often they run, whether they enjoy running, and how they use Strava.

A general observation from our study is that every runner has diverse motives. Although these motives are also often in flux, runners describe how their workouts are ways to satisfy one or more basic needs that contribute to living a ‘full’ life. Runners may start running to be healthy or to join a group, but those who are involved long enough find that running becomes tied to core aspects of their lives and identity. For many, running is a way to be healthy, connect with others, create a routine, and feel a sense of control over their lives.

Key findings

Runners cluster into five 'types'. We uncovered five types of runners based on the benefits that a person values and the extent that they run in social settings like groups or races:

- ▶ **Passionate Runners.** Run in many social settings and the most likely type to say that running helps them feel connected to others. They show a particular interest in psychosocial benefits of running like accomplishment and happiness.
- ▶ **Invested Runners.** Run in many social settings and are the most likely to be racers, but are middle-of-the pack in terms of experiencing social benefits from running. They have moderate beliefs that running provides psychological benefits like happiness.
- ▶ **Fitness Runners.** Fitness Runners rarely race and typically run alone—although 50% occasionally run within groups. Their dominant motives for running are to support general health, body image, and strength.
- ▶ **Mindful Runners.** Tend to run alone, although more than 50% participate in races. They mirror the health and body-related motives of other types, although they resemble Passionate Runners by highly valuing psychosocial benefits of running like happiness.
- ▶ **Reluctant Runners.** Rarely compete in races and primarily run alone. Reluctant Runners mirror the health and body-related motives of other types, but perceive the fewest social or psychological benefits of all types.

Although Passionate Runners demonstrate those who are most immersed in running, only 14% of runners match with this type. Instead, the most prevalent running type were Reluctant Runners (28%).

These types illustrate patterns in why we run, and predict how people run and use Strava. For instance, Passionate Runners record the most running miles per week and follow more Strava athletes compared to the remaining types.

Runner types evolve. Our interview participants described how running became more entangled with their lives over time, and this evolution is captured when we classify runner types. Beginners are more likely to be identified as Reluctant Runners, with 42% of beginners classified within this type that is characterized by having few social contexts for running and a focus on physical health outcomes. Reluctant Runners are less common for those running for longer than a year, whom are more likely to be Passionate or Invested Runners.

People keep people active. Runners said that the reasons they keep running often involve relationships with other runners, support from family, or belonging to groups. For instance, more than half of runners say that running is a way to belong to a community or strengthen relationships with others.

Social influences come in many forms. We found that runners benefit from having a diverse network connecting them to other runners. For example, although less than 30% of the sample reported being motivated to run because it helps them connect with other runners, 62% of runners who belong to in-person groups along with being highly-engaged Strava users experience this sense of connectedness. While this example focuses on relationships formed between runners, not all runners relish running with others. Runners described numerous other forms of social influence that shape their reasons for running, such as being part of a community, integrating running into their identity, and comparing their running times with others at races or online.

This investigation is the first of its kind and is the beginning of a new way of looking at why we run. We identify opportunities to build upon these findings with new strategies to motivate runners and ensure that running can contribute to an individual's wellbeing. We also anticipate that these findings will resonate with runners, and hope that runners 'find themselves' in the descriptions of different types of runners below.

Purpose

We explored the underlying themes that guide why people run. We were interested in the straightforward reasons for running like being healthier or getting outside. Nevertheless, we were also curious about how people often invite the world of running into their social, physical, and spiritual lives.

Through the why we run study, we captured responses from one of the largest international and online running communities to ask:

- Q1** How do runners describe the **reasons** why they run?
- Q2** Do certain types of people share **common patterns** in running motivation and behavior?
- Q3** How do the **people around us** contribute to our running motives?

Although everyone runs for unique reasons, we hoped to identify clusters of people who run in similar ways, or for similar reasons, to better understand the experience of each runner.

We focused on the connection between running and wellbeing because people often see running as something more than simply a fitness activity. When involved for long enough, people often see running as a part of who they are and as an activity that enriches their lives. By understanding why people run, we can find new strategies to promote running and ensure that running contributes to wellbeing.

One powerful way to identify whether or not an activity like running contributes to wellbeing is to study whether it supports the basic needs we pursue to achieve a full life (Goodman et al., 2018). When we set-out on this study, we were cognizant of how activities like running contribute to wellbeing and explored the basic needs that runners indicate underpin their involvement.

We also expected that social factors like runners' relationships and groups underpin their most personal reasons for running and thus can link to basic needs. Social contexts refer to relationships formed when running alongside others, along with many other contexts like attending running events, posting updates about workouts online, sharing running stories at work, or waving to another unknown runner on the trail. Even when we run alone, our motivations feature a thread of social influence, ranging from comparing times with others online, to describing ourselves as a runner when we meet someone new.

The findings below focus on which specific needs are met through running, and how running links to them. We identify the basic needs that drive people to run, identify runner types based on people's motives, and dive deep into the data related to social influences.

Research Approach

In 2019, we drew together researchers, writers, industry experts and, most importantly, runners to explore the questions above. This project began with rich and personal interviews with runners to ensure their voices could shine through. We conducted interviews with more than 24 male and female runners from the United States and United Kingdom, who described their relationship with running. These interviews helped us to understand runner motivation and design an online survey for 25,000 Strava users. This survey started with the open-ended question "Why do you run?" and progressed through numerous items to explore motivation and running behavior. This white paper focuses our analyses using data from the online survey (See Box 1).

Subjective wellbeing refers to the set of beliefs that people hold about their physical and mental health, along with their satisfaction and pleasure in daily life experiences. People who perceive high wellbeing on a daily basis experience many positive outcomes. They tend to live longer, have stronger immune systems, be satisfied in personal relationships, and cope better when facing adversity (Diener et al., 2017).

In general, we observed that runners' motives are diverse. We anticipated this would be the case but were interested in patterns that emerge across a large sample of runners drawn from many regions and running backgrounds. Participants were asked over a hundred questions during the online survey, yet there were few items that everyone agreed upon as a shared reason for running. This is not to say that there were no widespread reasons for running. Indeed, over 80% of runners identify that at least one of their reasons for running involves continuing to be healthier, get stronger, or have more energy. Still, motives for running varied widely – with less-common motives relating to aspects like supporting good causes (5%), promoting positive mood states (9%), or gaining control over one's life (15%). Although only a minority of runners were motivated by these latter factors, the size of the survey sample means that these motives are evident for large numbers of runners. For instance, 5% of the sample is equivalent to 1250 people.

BOX 1.

Methods Behind the 'Why We Run' Online Survey

Recruitment: Over 25,000 Strava users completed the survey. They were invited through direct email and through invitations in the Strava application.

Questions: Runners completed open-ended and scale-scored items that indicate the motives that drive their running. Runners also completed items describing their running behavior, social media use, and aspects they like and dislike about running.

Participants permitted access to their Strava data for use in study (e.g., running behavior; social network)

Characteristics of the online sample:

Seven countries: United States, Japan, Brazil, United Kingdom, France, Germany, and Spain.

Sex: 74% male, 24% female, 2% other

Age: Average of 41.21 years old (+/- 10.20), with majority within the range of 18-75 years

Running tenure: 7% of the sample had been a runner less than a year, 63% had run for 1-10 years, and the remaining 30% had run for 10 or more years

Average running miles per week:

13.67 miles (+/- 13.56), with majority within the range from 2-160 miles

Average STRAVA tenure, in years:

3.3 years (+/- 2.0), Range from 3 weeks to 9 years

Runners' Basic Needs

When unpacking findings from survey responses, our first step was to classify why participants run by identifying the basic needs people satisfy by running. This process started during in-person interviews, where we found that runners' motives coalesce into four basic needs. When we subsequently examined survey data, we identified respondents as 'pursuing' each need when they endorsed several survey items linked to a given need. For example, people were considered to pursue a community need when they indicated that they ran to enhance their personal relationships, to connect with other runners, and/or to feel like they have helped others get better.

Each basic need is described in Table 1, which also indicates the percentage of the online sample identified as running to satisfy that need. Many participants were identified as pursuing more than one need, and over 2000 participants identified pursuing all needs.

TABLE 1.
Basic needs served by running

*Note: Many participants pursued more than one

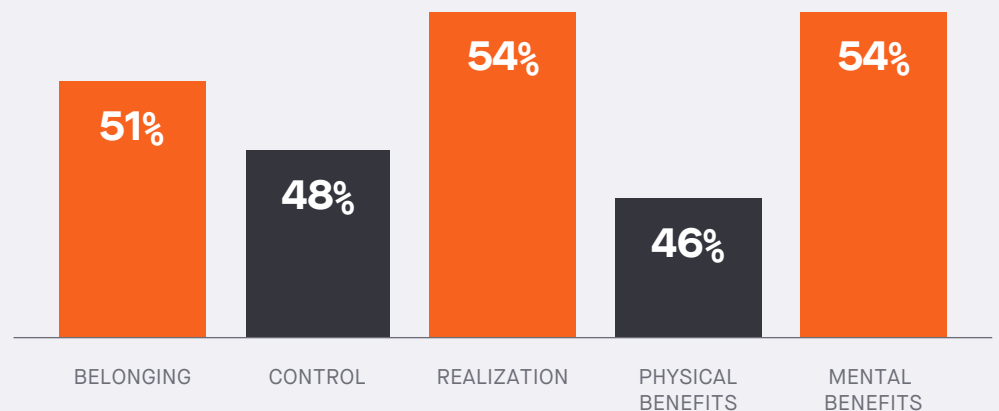
PERCENT OF SAMPLE SEEKING TO MEET EACH NEED THROUGH RUNNING*	BASIC NEED DESCRIPTION
<p>40% ▶</p> <p>PHYSICAL</p> <p>61% ▶</p> <p>PSYCHOLOGICAL</p>	<p>HEALTH</p> <p>Enhancing and maintaining physical and psychological health</p> <p>Runners listed reasons for running that were linked to health – distinguished as either physical or psychological health. Often connected with a sense of stability at a deeper level, Runners described the need to run to maintain their sense of self and as a way to respond to adversity.</p>
<p>29% ▶</p>	<p>CONTROL AND AUTONOMY</p> <p>Independence and choice</p> <p>Running provided a consistent routine that was sought after, but was also a place to feel in control. It was something that runners could plan and lay out by tracking their running involvement. It was also something that they chose to do – amidst many other things outside of their control.</p>
<p>34% ▶</p>	<p>COMMUNITY</p> <p>Belongingness and Connection</p> <p>People found community through running in many ways. Some described maintaining relationships with running friends extending over years. Others found community by belonging to running groups, forming an online network, enjoying major running events, or even by strengthening personal relationships through running (e.g., with a spouse).</p>
<p>36% ▶</p>	<p>ASPIRATION</p> <p>Achievement and personal development</p> <p>Runners felt that they had developed as a person and had overcome challenges through running. People also felt that running was a source of spirituality and self-betterment, or was a way to have new experiences.</p>

When analyzing how basic needs are linked to behaviors and reasons for running, we also identified several compelling findings:

- ▶ **We can tell who runs for the fun of it by which basic need they're seeking to meet.** One survey item asked runners to indicate whether they run more because they enjoy the experience, or for long-term outcomes. Runners who pursue control and psychological health report more strongly that they run because of the experience. In contrast, those who run to satisfy needs for physical health are focused on the outcomes they get as a result of running - more so than the rest of the sample. [See Figure 1]
- ▶ **Participating in races is associated with pursuing community needs.** Participants who pursue community as a basic need are more likely to participate in races at a high frequency; involved in six or more races per year. This means that either races produce feelings of community, or that people with a high need to feel community participate in races more often than others.
- ▶ **Not everyone experiences the same guilt when running pulls them away from other aspects of life.** Although runners often report feeling guilty when they miss family or social events because of running, those identifying with physical or psychological health as important needs are more likely to experience this guilt than other runners.

FIGURE 1.
Who runs for the experience of running?

Some core needs attract runners who want the experience slightly more than the outcomes of running.



Just as running can satisfy basic needs, interview participants described a dark side where running also thwarts their needs. For instance, although running is a way to feel healthy and proud of their bodies, running also forces them to acknowledge the increasing limits placed on their aging bodies. Similarly, interviewees focused on community described belonging to a larger community and forging relationships through running – although several runners described how running also strained their closest relationships.

Nevertheless, all participants felt running had the potential to satisfy one or more of the four basic needs that we identified.

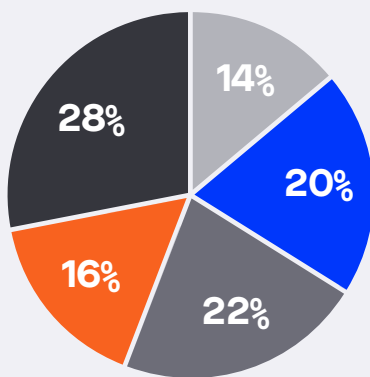
These findings highlight that people often use running to satisfy basic needs. There is nevertheless no universal need satisfied through running. For example, just because a runner experiences psychological health does not mean that they do not also experience other needs like community or aspiration. Indeed, over 2000 runners (9% of the sample) indicated that they run because of all five needs! Furthermore, a shortcoming of our approach is that we reduce runners down to whether (or not) they pursue each need on a one-by-one basis. Our next step was to explore runners' entire profile of running motivation and behavior.

Types of Runners

We classified participants based on several aspects of their running motivation and behavior to produce running types - as a way of constructing personas around running. Researchers call this a 'person-first' approach, because the analysis begins by profiling individual's range of responses to many items, rather than the starting point being individual concepts selected by the researchers. We ultimately identified five runner types, distinguished by how people responded to items regarding their perceived motives or benefits of running, along with items related to the settings in which they ran (i.e., races, running groups, alone).

We constructed runner types organically from the data using statistical analyses termed latent class analysis. This analysis allowed us to: (a) identify the running behavior and motivation items that were most effective at distinguishing runners, (b) uncover the number of types needed to best classify runners, (c) place each respondent into a type.

TABLE 2.
The five runner types



TYPE 1

PASSIONATE RUNNERS

Report belonging to groups and attending races/events, and particularly high on expectations that running helps forge connections with other people. Hold high expectations for experiencing happiness through running, experiences with accomplishment, and feel like running holds them accountable to be healthy.



TYPE 2

INVESTED RUNNERS

Participate often in running races and highly likely to belong to formal groups. This group enjoys the experience of running, although they were the middle-of-the-pack in terms of experiencing social benefits from running. They have moderate beliefs that running provides psychological benefits like happiness or accomplishment.



TYPE 3

FITNESS RUNNERS

Rarely participate in races and mainly run alone, but they enjoy running in groups and 50% in this group belong to a running group. They tend to report fewer social or psychological benefits of running compared to other types - although their motives to run for health, body image, and strength followed similar profiles as other types.



TYPE 4

MINDFUL RUNNERS

Tend to report participating in races and primarily run alone. Although they tend to mirror other types regarding the reasons why they run, they resemble 'Type1' runners in that they value happiness, accomplishment, and accountability outcomes of running higher than most other types.



TYPE 5

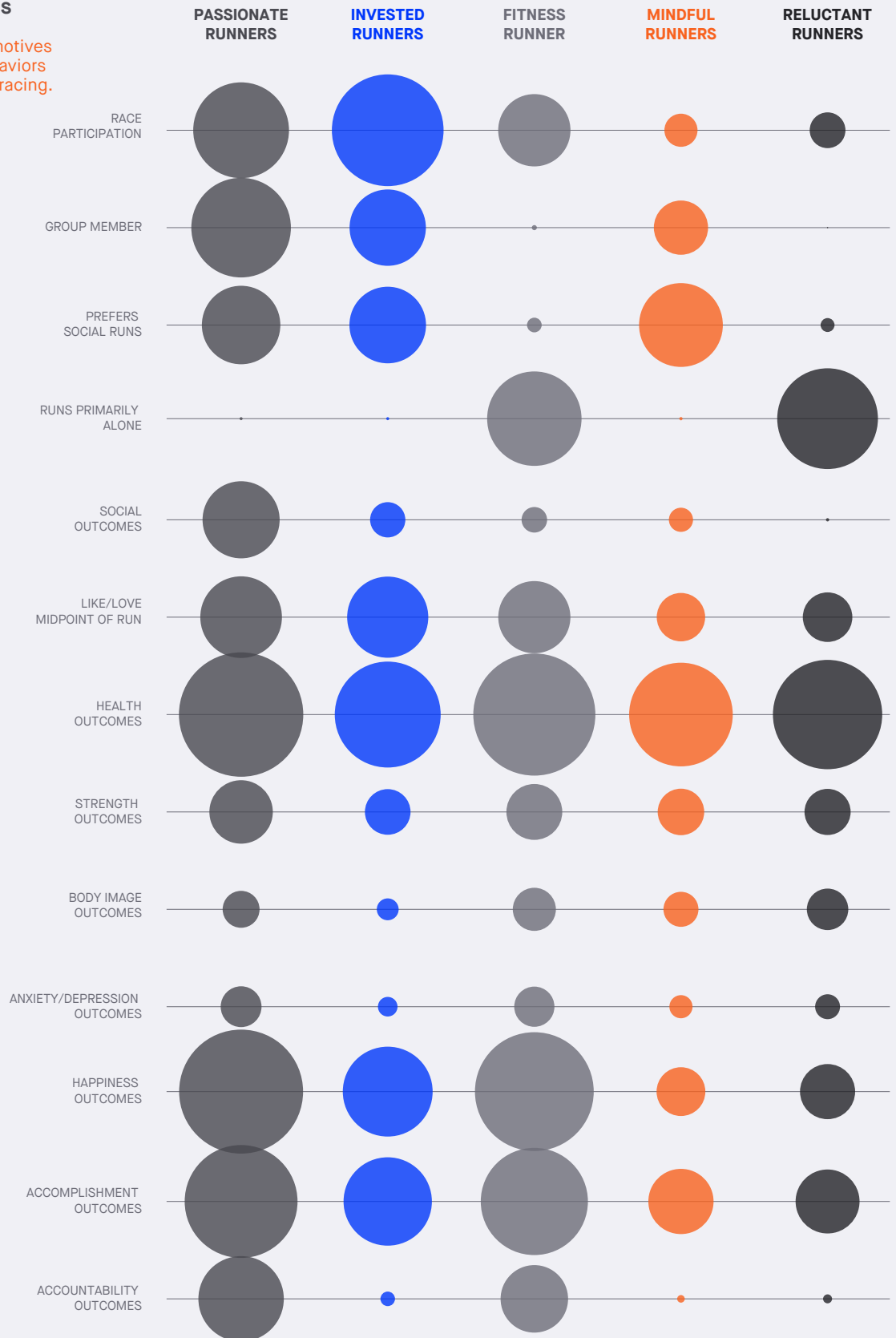
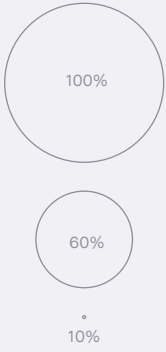
RELUCTANT RUNNERS

Rarely compete in races and primarily run alone. They perceive the fewest social or psychological benefits of all types. Their interests in health, strength, and body image benefits follow the same pattern as other types.

FIGURE 2.
Motives and behaviors
of the five runner types

Derived from self-reported motives for running, and running behaviors related to social groups and racing.

PERCENTAGE OF RUNNERS:



Profiles for each type are illustrated in Figure 2 and are described in Table 2.

We also identified descriptive one-word labels based on the profile of each type. Although these labels help to put a 'face' to each type, it was challenging to identify a single term to distinguish each profile! For instance, we labelled Type 4 as Mindful Runners because a value for psychological outcomes set them apart from others; even though we did not overtly measure mindfulness, this profile brought to mind the persona of a mindful runner.

We classified each participant as their dominant type. This is not to say any person is constrained to a single type; every runner is unique and likely resembles several types. Each type nevertheless reflects a persona that we observed, and participants' dominant type brings to light differing combinations of running motives and behaviors. To summarize items that best distinguish one type from another, key differences include:

The percentage of people within each type who had **participated in a race** during the preceding year ranged from **26% (Type 3) to 89% (Type 2)**.

Compared to **more than 60% of runners** in Types 1, 2, and 3 who **preferred running with others**, fewer than 13% of type 4 and 5 runners preferred running with others.

Compared to **61% of type 1** runners feeling like a primary benefit of running was **to connect with other runners** and strengthen relationships, only 3% of type 5 runners felt the same.

More than 80% of Passionate and Mindful Runners (Types 1 and 4) indicated running delivers **happiness and a sense of accomplishment**—50% or fewer of Fitness and Reluctant Runners (Types 3 and 5) felt the same.

All five types of runners can be found in all countries, sexes, and ages. With that said, we also identified that Passionate and Reluctant Runners (Types 1 and 5) significantly differed from the overall sample with respect to sex and age. First, compared to the overall sample comprised of 24% female, Passionate Runners are significantly more frequently female (34%), and Reluctant Runners are significantly less female (20%). Also, Passionate runners were relatively younger (average 39.2 years of age) than all other types, whereas Reluctant runners were comparatively older (average 42.5 years of age).

The value systems within countries predicted the types of runners, as Passionate and Mindful Runners (Types 1 and 4) were more common in certain countries compared to others. We examined differences based on whether culture in a country (Minkov & Hofstede, 2012) is dominated by:

- ▶ Collectivism (e.g., Brazil, Japan) or individualism (e.g., United States, Australia), with collectivist countries tending toward values focused on community, selflessness, and doing what is best for society.
- ▶ Long-term orientation (e.g., Germany, Japan), versus a shorter-term orientation (e.g., Brazil, United States). Countries featuring long-term orientations tend to value future rewards through perseverance and thrift while also valuing leisure to a lesser extent.

Compared to 27% of the overall sample that resided in collectivist countries, collectivist participants were less likely to be classified as Passionate (22%) and Mindful (17%). Even though only 38% of the sample was from countries dominated by shorter-term orientations, the prevalence of a short-term orientation was highest among Passionate (63%) and Mindful Runners (55%). Because these two types are both driven to run by happiness, accomplishment, and accountability outcomes, countries that value individualism and shorter-term outcomes may also value perceptions of running as an activity with psychological and social benefits.

This magnitude of these differences in age, sex, and country might be subtle, but are notable considering that the study sample was drawn from such a wide span of contexts.

TABLE 3.
Runner types and running tenure

Number of people
percentage of sample

	TYPE 1 PASSIONATE	TYPE 2 INVESTED	TYPE 3 FITNESS	TYPE 4 MINDFUL	TYPE 5 RELUCTANT
RUNNING FOR A YEAR OR LESS	122 8.9%	167 12.2%	263 19.3%	235 17.2%	579 42.4%
RUNNING FOR MORE THAN A YEAR	2,727 13.3%	4,582 22.4%	4,120 20.1%	3,239 15.8%	5,824 28.5%

Runners also grow into their type. The 1366 newcomer runners – running for a year or less – were less likely to belong to Types 1 and 2 (Passionate and Invested) and more likely to belong to Type 5 (Reluctant) compared to those who had run for longer [See Table 3]. Given that Reluctant Runners are less-involved in social settings and report few psychological benefits or motives, this pattern hints that many runners gradually become more involved in social settings like races or groups and (over time) identify with social or psychological reasons. Meanwhile, there were no differences in running type when we compared the remainder of runners based on their duration (e.g., one-to-five years, five-to-ten years, or ten-or-more years). It is therefore likely that people take a year or longer before they settle into a running type and, afterwards, their 'type' stabilizes.

TABLE 4.
Runner types and actual vs. perceived Strava use

Note: Highlighted values are key areas where certain types were higher in comparison to other types.

	TYPE 1 PASSIONATE	TYPE 2 INVESTED	TYPE 3 FITNESS	TYPE 4 MINDFUL	TYPE 5 RELUCTANT
GROUP RUNS PER WEEK	.73	.61	.16	.21	.43
MILES/WEEK	17.0	15.2	15.4	14.4	12.8
# OF OTHER STRAVA ATHLETES FOLLOWED	77.6	55.0	38.9	42.0	52.7
ENJOYED POSTS BY ROMANTIC PARTNER	23%	17%	11%	17%	13%
# OF COMMENTS POSTED (ALL TIME)	228	228	133	125	166

Runners within each type also demonstrate unique patterns in how they use Strava (Table 3). Type 1 runners are the most engaged in Strava, run the greatest number of miles, and more frequently log group runs. There are also patterns that include several types. For example, Type 1, 2, and 4 runners seem to integrate their personal and running networks, evident in how greater proportions of these types enjoy posts by their romantic partner on Strava. These results are exciting because they show that running types are predictive of running-related behaviors. By knowing runner types we may predict how and when people run.

In summary, we identified five runner types that reliably distinguish people based on the psychological and social aspects of running, and that are useful to predict when and how people run. There are also compelling patterns that reveal that runner types are something that we 'develop', and that certain types are more (or less) common for certain sexes, ages, and countries.

Social Influences And Running

Several of the runner types illustrate the importance of running with others, and belonging to a community. As perhaps the type where social influence was most evident, Passionate runners tend to belong to real-life and virtual groups, participate in races, and feel that running helps them connect with others – with family members as part of their running network. However, other types were more common and did not demonstrate this depth of social engagement within running. This difference led us to ask: Do we need to connect with others through running?

We first explored the prevalence of social contexts. Although most participants primarily ran on their own, participants also frequently ran with friends informally (39%) and belonged to running groups (27%). Furthermore the average participant followed 48 other runners on Strava and had posted 200 comments on others' posts during their tenure on the application.

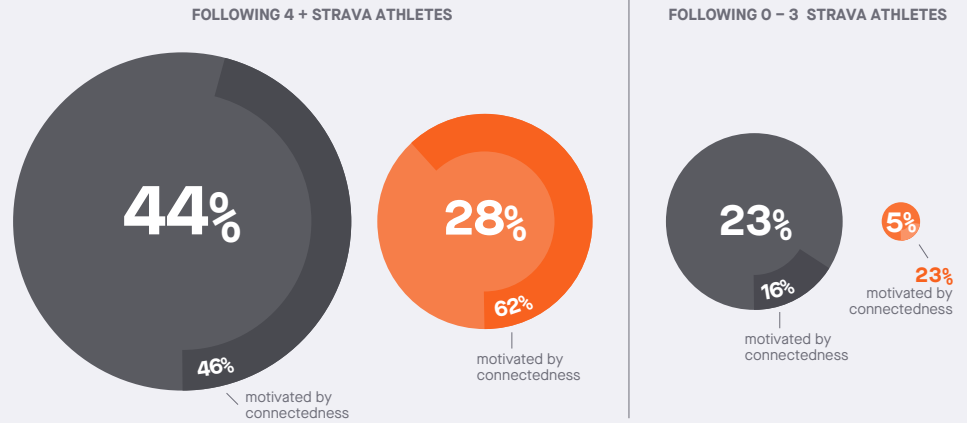
Runner sex and by age also predicted the likelihood of belonging to running groups. Females run as part of a group more often than their male counterparts. This difference emerges with time. As young adults, the difference between men and women in running groups is just 2%, but grows to 12% among those aged 60 years or older.

- 20%** of participants felt like they were an inspiration for others
- 24%** ran to connect with other runners
- 33%** also indicated that Strava helps them to find and meet like-minded people

We also observed that connectedness might be most likely for those who are involved in running communities that are both in-person and online. As an indicator of real-life group interactions, we classified every runner regarding whether they belong to a formal running group. We also classified runners regarding whether they follow at least four other Strava users, to indicate at least moderate online engagement. Twenty-eight percent of the sample had at least moderate Strava engagement along with participation in real-life groups. Table 2 reveals that connectedness is an especially prevalent motivator for those involved in both settings. In other words, runners who participate in both online and in-person 'groups' are the most likely to see connectedness as a core motive.

TABLE 5.
Online vs. in-person
interactions and feelings
of connectedness

■ Solo Runners
 ■ Group Runners



Still, some runners report comparatively few social influences. Although most participants from the sample ran in at least one social context, 414 individuals (2% of participants) explicitly indicated that they did not run for social reasons and ran individually. Runners clearly differ regarding whether they experience community through running and whether they feel connected with others.

We also note that social influences may emerge in unexpected ways, that are less obvious than a feeling of connectedness or belongingness to a community:

- ▶ **We often rely on other runners to cope with adversity.**
 Among the participants reporting recent major life events (e.g., change of employment, loss of a loved one, moving), 56% indicated that the running community helped them to cope with these challenging life circumstances. Even if people don't always feel closely connected to other runners, the running community can play a role in key life situations.
- ▶ **We're motivated by how we stack up against other runners.**
 Eighteen percent of runners report being motivated by comparisons with other runners, while 33% use Strava to understand how they are doing compared to others. These comparisons influence behavior. For instance, those who report being driven by comparisons with others are more likely to say they would hide Strava activities when they felt embarrassed (e.g., missed their goal).

Our investigation of social influences demonstrates how 'people keep people active'. Belongingness and connectedness were prevalent motives and benefits that are predicted by the quality and diversity of social interactions in running. These findings do align with evidence from recent research about social influence in running, and are often examples of many explanations for social influences that researchers propose (e.g., need to belong, social support, social comparison; See Box 2).

Recognizing the power of social influences need not mean that we have to join a group or become social media mavens to help us get the most out of running. People do vary in whether or not they run socially, and belongingness was only a core basic need to run for around one-third of the sample. However, this study revealed patterns of social influences related to feeling competent, gaining a running identity, and strengthening relationships that likely apply to most runners and can be tools to unlock motivation.

BOX 2.

Research and Theory Explaining Social Influences in Running Motivation

Recent research shows that social influences are relevant for running. Regarding training, close-knit groups can prompt people to exercise harder, are often more enjoyable, and can provide identities that bind members of the group (Evans et al., 2019; Strachan et al., 2013). Similarly, the Strava 2018 and 2019 Year in Sport reports reveal that, during group activities, runners cover more miles, spend more time in a workout, and begin morning workouts earlier in the day than if they're running solo. Running is also contagious. Aral and Nicolaides (2017) compared runners' daily activity with others in their own network of friends, using data from an online social network for running – one that was not Strava. Runners ran longer when they noticed their online network doing the same.

Explaining why these social influences impact running, researchers tend to draw from one or more of the following theoretical approaches:

- ▶ **Need to belong.** We have an innate desire to seek belongingness, especially through interpersonal relationships that are lasting, stable, and satisfying (Baumeister & Leary, 1995)
- ▶ **Identity.** Activities like running become one way that we define ourselves and our role in the world.
- ▶ **Peer pressure.** When we find communities that we want to belong to, we tend to experience motivation to behave like everyone else in the group.
- ▶ **Social support.** We rely on support from other runners (e.g., providing technique or training, material support, and encouragement), as well as support from others in our lives to run.
- ▶ **Social comparison.** Activities like running can be a way to feel competent, so we often seek comparisons with other runners or seek out chances to compare our 'group' with others.

Who enjoys Running?

Armed with our findings about basic needs, runner types, and social influences, we applied these insights to explore whether patterns from our earlier analyses help identify which people enjoy running.

People can fight through dislike of exercise for long-term goals. However, past research reveals that people often do not enjoy the experience of exercise, and that these people struggle to maintain regular activity as a result (Ekkekakis & Brand, 2019). In other words, our goals are likely to play 'second fiddle' to our feelings about running. It is therefore important to consider how we feel when running to understand motivation. For instance, Figure 3 identifies the percentage of runners responding that they would 'love' each aspect of a run – from start to finish. Runners tend to report their lowest affect during the midpoint of the run, and expect positive feelings at the end.

FIGURE 3.
What we love about a run

- Whole Sample
- Run for Physical Benefits
- Run for Mental Benefits



Runners also differ in which aspects of a run they enjoy. Figure 3 reveals that those focused on the psychological health and stability basic need are more likely to anticipate loving the midpoint of the run. As another example, 67% beginner runners like or love the midpoint of a typical run, which is lower than those who have been running for a more than a year (76%). Similar effects are evident when examining whether runners generally expect running to feel enjoyable. Those who have been running for more than a year report that running is more enjoyable than beginners.

Similar patterns emerged when we analyzed responses regarding running type and group involvement, revealing that:

- ▶ **Passionate, Invested, and Mindful Runners (Types 1, 2, and 4) enjoy running more than other types.** Participants identified as Passionate, Invested, or Mindful reported being more satisfied with running compared to Fitness or Reluctant Runners (Types 3 and 5).
- ▶ **Groups can contribute enjoyable aspects to running.** Those who belong to running groups enjoyed running more than those who were not involved in groups. This link between group membership and running enjoyment were consistent across both males and females, and regardless of the country of residence.

Innovating to Enhance the Running Experience

The Why We Run study explored diverse strands in running motivation. Reasons for running differ from one person to another, and are dynamic with time. This means that running motivation can be difficult to explain. Although researchers have been interested in running motivation for decades (e.g., Masters & Ogles, 1993), the why we run study helps to find threads of coherence amid the seeming chaos of running motivation.

Our first hope is that this study resonates with runners. While everyone possesses a unique profile of motivation, we anticipate that runners will see a little bit of themselves within each of the types. Are there times when you are a Passionate Runner - and other times you feel like a Reluctant Runner? We expect that learning more about one's type could help reflect on why and how we run.

If you can find yourself in our data, you might better understand how to motivate yourself while watching for potential pitfalls. As one example of how runners might reflect on their 'type', we noticed that Passionate Runners' profiles favored lifelong involvement in running but also involved red-flags that could be a concern. The embedded role of running in the lives of Passionate Runners could mean that: (a) If they have to stop running for some reason, they may lose important aspects of their identity and social network, and (b) they are at risk to demonstrate an addiction to running that could lead to negative behaviors like running through injury. People who recognize this passion for running could therefore find ways to stoke their motivation while keeping an eye on maintaining other areas of their lives as well.

Findings related to the five runner types also carry insights for how we can motivate runners. One initial application of this insight is that we now recognize some of the aspects of running that are best able to distinguish one runner from another. This finding can help us to design questionnaires that runners could complete to learn more about themselves.

The ability to identify runners' types could also lead to tailored strategies to motivate people within each type. As an example, it is plausible that a tool to identify a runner's type could help determine the online running environment that best motivates them – such as how frequently their online interface includes health updates, friend updates, competitive results, or group memberships. In a sense, this approach could curate one's online environment to incorporate the most positive components for their running type.

The Why We Run study also advances understanding of the social threads in running motivation. The diversity of social influences examined in this study means that runners might want to reflect on the ecology of social influences related to their running. Even those who typically do not run with other people might find that they rely on different types of social interactions, like participating in races or comparing themselves with others online. Maybe we all need a steady diet of our running community to stay motivated.

For researchers, there are also many avenues to further explore when, and how, runners are influenced by those around them. One potential path is to compare the role of in-person running relationships compared to online running networks as a way to ask: Is there anything 'special' to physically running alongside other people?

We expect that there are some benefits that may only emerge for in-person groups. It is challenging to replace the person running beside you and encouraging you along. Nevertheless, we also expect that there are ways to design online running networks to either: (a) tap-into aspects of in-person interactions, or (b) include features that are not possible in the in-person running experience. To explore the contributions of in-person and online social interactions, it is thus critical to examine how people respond to each uniquely.

One remaining question is to explore differences between people regarding whether they feel their running is 'social'. Our study revealed subsets of runners who report relatively few social components of running. It is thus likely that some people may possess personalities or orientations that mean that running tends to be an independent activity. As such, there is critical remaining work to unpack these individual differences. We anticipate that individual differences may determine what social aspects runners focus on. For instance, one runner in a group may focus on feeling like they belong with others, while another may focus on how they compare with others.

These findings also have limitations. For instance, the sample likely included Strava users who were presumably 'engaged users', because it was a voluntary survey. As such, certain types of runners may not have been captured. For instance, runners who entirely eschew social interaction or those unable to use the application would have been excluded.

Survey and interview responses are also limited to only what runners had 'access' to, so some responses were biased. One example of this relates to exercise enjoyment. People tend to have biased perceptions of exercise enjoyment – where they recall that exercise is more enjoyable than the experience was at the time. More powerful ways to explore running enjoyment would involve mid-run assessments of feeling states – perhaps by sending prompts asking how runners feel using smart-watches or other devices. This may be the only way to accurately capture how our feelings about running shift with time.

Blair Evans, Ph.D.

About the Author



Dr. M. Blair Evans studies the psychology of physical activity as an Assistant Professor in the Kinesiology Department at Penn State University. Prior to Penn State, he studied at several institutions in Canada – including Queen’s University, Wilfrid Laurier University, the University of Lethbridge, and Laurentian University.

Research conducted by Blair and his students in the Team lab focuses on how our peers within small groups can influence our wellbeing and health behaviors. This research spans varying settings and populations and is published in leading journals related to sport and health psychology. His ‘big dream’ is that everyone – regardless of their age or ability – has access to inclusive social environments that motivate them to be active, while also forming the personal relationships needed to live their best life. Blair lives with his wife and two young children in State College, Pennsylvania.

Project Introduction

This whitepaper reports on the results of an academic-industry partnership inspired by curiosity about reasons for running and the meaning we derive from being a runner. Strava partnered with a team of researchers in what is, to our knowledge, one of the largest international investigations of running motivation to date. This partnership produced rich insights revealed both through this whitepaper and an online data visualisation.

As the lead author of this whitepaper, Blair Evans joined the team with over a decade of experience studying physical activity motivation – with a focus on how our physical activity behaviors are shaped by relationships and groups. His expertise, combined with Strava’s passion around the role of the online community in physical activity, yielded new and instructive insights we hope will help many runners find what motivates them.

References

Aral, S., & Nicolaides, C. (2017). Exercise contagion in a global social network. *Nature Communications*, 8, 14753.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-525.

Diener, E., Pressman, S. D., Hunter, J., & Delgado-Gil, D. (2017). If, why, and when subjective well-being influences health, and future needed research. *Applied Psychology: Health and Well-Being*, 9, 133-167.

Ekkekakis, P., & Brand, R. (2019). Affective responses to and automatic affective valuations of physical activity: Fifty years of progress on the seminal question in exercise psychology. *Psychology of Sport and Exercise*, 42, 130-137.

Evans, M. B., Graupensperger, S., Benson, A. J., Eys, M., Hastings, B., & Gottschall, J. S. (2019). Group structure and entitativity in group fitness: considering groupness at within-and between-group levels. *Psychology & Health*, 34, 715-732.

Goodman, F. R., Disabato, D. J., Kashdan, T. B., & Kauffman, S. B. (2018). Measuring well-being: A comparison of subjective well-being and PERMA. *The Journal of Positive Psychology*, 13, 321-332.

Masters, K. S., Ogles, B. M., & Jolton, J. A. (1993). The development of an instrument to measure motivation for marathon running: The Motivations of Marathoners Scales (MOMS). *Research Quarterly for Exercise and Sport*, 64, 134-143.

Minkov, M., & Hofstede, G. (2012). Hofstede's fifth dimension: New evidence from the World Values Survey. *Journal of Cross-cultural Psychology*, 43, 3-14.

Strachan, S. M., Shields, C. A., Glassford, A., & Beatty, J. (2012). Role and group identity and adjustment to the possibility of running group disbandment. *Psychology of Sport and Exercise*, 13, 436-443.

Strava (2018). 2018 Year in Sport. Report retrieved from: <https://blog.strava.com/press/2018-year-in-sport/>

Summary of Methods

We conducted one of the largest and most comprehensive studies of running motivation, to date. The team contributing to this project included industry experts, writers, data analysts, and researchers. We specifically sought to leverage the access that Strava has to a community of runners to explore running motivation, through large-scale online surveys as well as in-person and immersive interviews.

Immersive interviews. Our immersive interviews were conducted with 24 runners in the United States and the United Kingdom. These individuals participated in in-home interviews along with interviews during an outdoor run – where interviewers prompted each runner to describe their journey through running and reflect on why they run. Runners who participated in interviews were drawn from a cross-section of elite and recreational runners, extending from backgrounds in road running, trail running, and broader forms of involvement in endurance training. There was a spectrum of unique themes behind runners’ reasons for being involved, with each runner differing in the story that they told about their running.

Online survey. We completed an online survey with over 25,000 runners who were invited through the Strava application. There were over 100 items on the online survey. The participants first included one open-ended item asking them to identify why they run. Subsequently, runners completed multiple-choice and scale-scored items about their motives for running, when they run, the duration of running, how they feel during running, among other items. Runners also allowed access to their Strava use data. As such, the research team was able to compare survey responses with running behavior (e.g., mileage, number of group runs) and interactions with others (e.g., number of followers, comments on other posts).

Participants were drawn primarily from seven markets, including the United States, Japan, Brazil, United Kingdom, France, Germany, and Spain – which included participants drawn from additional countries within these markets (e.g., Canadians, within the U.S. market). Although data drawn from the online application indicated that participants ran approximately 13.67 miles per week of running, the sample was skewed. Specifically, most runners completed fewer miles than the mean, with a smaller group of participants completing high weekly mileages. Participants tended to have been long-term runners, with 30% of the sample reporting being a runner for over ten years. Most participants reported participating in races or related running events at least occasionally. The most common form of running event were races ranging in length from 5km to a half-marathon (66%). Nevertheless, participants reported engaging in numerous behaviors as their primary forms of physical activity, including road cycling, hiking, swimming, mountain biking, and weight training.

Runner panels. Throughout the process of analyzing and interpreting interview and survey responses, we consulted with a four-person panel of community members to explore their collective insights as the project progressed. The panel included running coaches, professional athletes, and other leaders/influencers within the running community.

APPENDIX FIGURE
Distribution of countries
within survey sample.

