

Ice Hockey 2.0

AMBIDEXTERITY AND TWO DIMENSIONAL PLAY

by Chris Cahill

Let's make the game better...

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INTRODUCTION

Hockey today is better than ever. Each season we see terrific advancements in speed and skill. Refined hockey training programs are now improving player abilities.

Meanwhile, many former players feel the game is over-coached. I think we have exhausted the tactical repertoire in the game's current form.

For the purpose of this paper, please consider that live play in hockey is continuously chaotic for three time constrained periods of action. Also, players can use their sticks in any means necessary below shoulder height to play the puck. Given these guidelines, here I present a new tactical framework and development scheme for hockey.

What follows is based on my personal research and training experience, as well as recent equipment improvements. By shedding light on how the game will evolve, I hope to inspire more playfulness in hockey.

1. ONE DIMENSIONAL PLAY

Hockey players have traditionally grasped the top of the stick with one particular hand. And for the entirety of their playing career, they play with that one dimensional stick orientation. This choice simplifies game participation and tactile adaptation.

“Man can make only
the rules. He cannot
make the laws, which
are the laws of nature.”
- Kimon Nicolaïdes

Since the 1960's—to further reduce this work— players have used a blade curve to enhance forehand puck control.

But a stick curve nullifies using both faces of the blade equally, as one face is significantly easier to use than the other. This imbalance goes on to handicap play in significant ways.

Using the stick one dimensionally makes body orientation dictate play rather than stick orientation. Given the current initiative to create more offense in hockey, why does this distortion favoring forehand play persist?

Players cannot sense the losses in tactical potential, in movement efficiency, and in overall fitness that a single stick orientation imposes.

2. ONE DIMENSIONAL WORK

Ice Hockey demands great physical equilibrium. But players use a one dimensional stick orientation. They bear the game's workload and physicality unevenly. As a result, players physical development becomes unbalanced. This creates greater injury risk.

Off-ice training recalibrates physical equilibrium only to a degree. As mature players know, hockey shape is its own fitness regime. Training hockey-specific tasks remains the best way to groom fitter, healthier, and more skillful players.

“Culture tends to argue that it forbids only that which is unnatural. But from a biological perspective, nothing is unnatural. Whatever is possible is by definition also natural. A truly unnatural behavior, one that goes against the laws of nature, simply cannot exist, so it would need no prohibition.”

- Yuval Noah Harari

3. TWO DIMENSIONAL PLAY

The advantage I propose here is developing a player's second dimension of stick play to a competency level equal to their dominant stick orientation. There is no game rule prohibiting use of the stick in both dimensions.

Players competent in hockey skills from both stick dimensions will have a wonderful superiority in individual skill and fitness. Training two dimensions or an *ambidexterity* increases player balance, dexterity, and proprioception. It also enhances reaction time, movement coordination, and mental acuity.

Two dimensional stick play creates a higher concurrent work capacity in players and a higher injury resistance. Healthier and more energized players spells more opportunity, assertiveness, and— for professionals — earning potential. Also, clubs can manage their assets more effectively.

“The best way to avoid injuries is exercise variations.”

- Charles Poloquin

Practicing a flexible stick orientation creates a two dimensional perception of the game and a two dimensional ability to execute. Two dimensional players will have more intuition for the game.

Two dimensional training and play is a competitive advantage.

4. STRAIGHT BLADE

We exploit this advantage by using an invariable straight blade. Since all natural laws originate in symmetries, this interface is infused with nature's wisdom. It has a learnable regularity that maximizes the steepness of a player's hockey skill learning curve.

“The height of cultivation is really nothing special. It is merely simplicity; the ability to express the utmost with the minimum. It is the halfway cultivation that leads to ornamentation.”

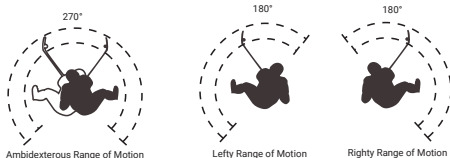
-Bruce Lee

The materials that comprise hockey sticks perform more consistently and efficiently than ever before. Despite common belief, stick actions with the puck are more heavily influenced by shaft flexion, not blade twitch. So a composite straight blade has the necessary resiliency to not sacrifice power or accuracy that straight blade wooden sticks once did.

“These kids can do a lot of things at 12 that we could never do. When I was 12 we weren’t doing any one-timers. We couldn’t even bend the stick yet. The sticks have definitely changed the game, probably more for the youngsters than for the guys in the NHL — although it’s changed in the NHL, too.”

-Wendell Clark

Practicing with a straight composite blade enhances skill, aptitude, and versatility. It gives players more tools, like the ability to use each face of the blade in two different ways. At every game transition a player will have four different ways to orient their body and stick to the play, as well as to receive or distribute the puck.



Using a straight blade opens up greater geometric variety to play with. It also promotes a shrewder use of time, energy, and the hockey stick. Meanwhile, opponents must read a blade with less information.

5. STRATEGIES

The increased variability of two dimensional players makes new gameplay sequences. The following is a list of possible tendencies:

Breakouts. A defenseman rounding the net with possession will more skillfully protect the puck towards the outside of the rink.

Defense. If a defender can switch top hands on the stick to get closer to the puck and around the opposing player, the defender gains a significant advantage towards disrupting the play. Defensemen will have better stickchecking ability. A

flexible top hand will also deliver new results when taking away passing lanes.

Face-offs. Players will no longer relinquish an advantage on their weak side draws, promoting puck possession time.

Board Play. Wingers on the boards in the defensive zone will more skillfully secure possession by keeping the puck to the outside while moving

up ice. Defensemen inside the offensive blue line will more easily fish the puck from the boards to keep offensive play alive.

Passing. It will be easier to create and identify passing lanes. Two dimensional players will be better puck receivers and distributors.

Shooting. Goalies will respect the possibility of shot fake from one side that flips to a forehand shot attempt from the other side. This dramatic variability in shot angle will change current goaltending strategies.

Everywhere. Each contest for the puck will honor the increased variability of actions and outcomes.

“The integrity of an extended system requires that the new dimension added to the old system must be logically and uniquely derived from the old dimensions and thus form an integral part of the dimensions of the new system.”

-Yuji Ijiri

6. CONSIDERATIONS

How do the team players with possession orient their sticks to the puck carrier?

How do teams without possession orient their sticks to the puck?

Will this create more interchangeability between wingers and defenseman, just as wingers or defensemen are interchangeable with each other?

Will this will be another step towards five man roving units, with pseudo positions assumed moment to moment based on the situation?

The two dimensional skillset reveals increased nuance in each situation, a more local hockey. It creates the opportunity for more creativity and cooperation.

For the game to continue growing, a healthier balance of order and chaos in hockey must be promoted— one that encourages intelligent design over natural selection, play over fighting.

Two dimensional play does this.

7. THE CHALLENGE

Why not gain an exposure to all the complexity the game has to offer, all the imaginable changes in task and environment, to be more skilled and cooperative?

To implement this adaptation requires a long term approach: a training period of five to seven years.

Once a two dimensional mastery of stick play is attained and interwoven, future players will inspire more assiduity, ingenuity, and collectivism in the game.

This will make the game more fun. It will also renew the entertainment product for fans.

But the end result is not yet visible in a rink somewhere; you cannot see this on TV or play this style in a video game.

To the players who aspire to play in this way— use your imagination.

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