On Making Good Games

Using Player Virtue Ethics and Gameplay Design Patterns to Identify Generally Desirable Gameplay Features

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ABSTRACT

This paper uses a framework of player virtues to perform a theoretical exploration of what is required to make a game good. The choice of player virtues is based upon the view that games can be seen as implements, and that these are good if they support an intended use, and the intended use of games is to support people to be good players. A collection of gameplay design patterns, identified through their relation to the virtues, is presented to provide specific starting points for considering design options for this type of good games. 24 patterns are identified supporting the virtues, including RISK/REWARD, DYNAMIC ALLIANCES, GAME MASTERS, and PLAYER DECIDED RESULTS, as are 7 countering three or more virtues, including ANALYSIS PARALYSIS, EARLY ELIMINATION, and GRINDING. The paper concludes by identifying limitations of the approach as well as by showing how it can be applied using other views of what are preferable features in games.

Keywords

Gameplay design, gameplay design patterns, player virtue ethics.

INTRODUCTION

What makes a game good? This question is of course very difficult to answer since it depends both on the opinions of both those that play the games, the gamers, and those that create the games, the game designers. However, it is also the most important issue for both groups and thus cannot be ignored simply because it is difficult. If this question could be approached in a neutral fashion, that is, one not based upon preferences of gameplay styles, it could not only provide an understanding of games in general but also offer a general starting point for new designs.

This paper examines this question within the limiting scope of only considering gameplay. It makes use of *gameplay design patterns* [5], interrelated descriptions of commonly reoccurring gameplay parts of a game design, to illustrate specific gameplay mechanics. This not only to be able to more precisely describe them, but also to support designers since the patterns have been developed as design tools.

DEFINITIONS OF GAMES

One starting point for exploring what constitutes a good game might be to see what is required for something to be a game at all. Many definitions or collections of required characteristics for games have been presented; some seeing them as activities [1,7,9,13,27] while others see them as systems [10,15], or a combination [1,25].

All but two of these definitions ([9,27]) mention rules or something similar (i.e. limiting context [1], closed formal system [7], and voluntary control systems [1]). Also common is a stress on the importance of goals, using phrases such as "achieve their objectives" [1], "overcome unnecessary obstacles" [27], "in the pursuit of a goal" [9], and "influence the outcome" [15]. However, as several examples above show, the strive towards goals is also seen as being voluntary and this is stressed in other definitions as well, e.g. "a free activity" [13].

Other definitions express similar views but stress confrontation, e.g. "Conflict (obstacles that challenge the goal pursuit)" [10], "contest between powers" [1], and "engage in an artificial conflict" [25]. Even if confrontation and aggression are parts of game definitions, several also stress the sheltering from adverse effects, e.g. "Safety (psychological experience of danger, without the physical realization thereof)" [10], and "consequences of the activity are optional and negotiable" [15]. Some go a step further, seeing game as something "consciously outside 'ordinary' life" [13] or "Separate in time and space" [7].

The absence, or near absence, of any of the characteristics makes it possible in a way to state that a game is bad simply because it is bad at being a game. This has for example been done in reference to Sid Meier's statement,

that "a game is a series of interesting choices" to make the point that a good game have a range of possible actions that all are worth considering [24, p. 38]. However, this reasoning misses the point that it is not enough to know what characteristics should be present, one also needs to know how to make them present and in what form.

The MDA framework [19] lists several different types of fun that games can provide, which can be seen as descriptions of what makes good games, and could therefore be seen as a better starting point that game definitions. However, it does not give detailed design guidelines beyond the model that gameplay mechanics give rise to dynamics which in turn can express the aesthetic intentions of a design. There are several other projects to make design knowledge about gameplay explicit. The game ontology project [29] uses prototype and grounded theory to create a hierarchical structure of game concepts from the players' perspective, but does not specifically look at gameplay. In contrast, gameplay design patterns [5] look exclusively at gameplay and are organized in a web of relations. However, none of them makes explicit normative statements of how games should be constructed nor do they directly link to any of the definitions. The 400 rules project [12] provides normative statements but no hierarchy of importance (besides that some rules trump others), have 8 years after being launched only one sentence sketches of 112 rules, and are guidelines to how designers should think rather than descriptions of what makes games good.

Given that finding a basis for what constitutes a good game was unsuccessful when looking at game definitions and game design tools, another starting point is needed. Game phenomena can be studied from three different perspectives, that of games, gamers, or gaming [4], or combinations of these. If looking directly at games does not reveal a viable approach to what makes them good, approaching the issue from one of the other perspectives may be more fruitful. Instead of trying to find a basis for good games one could instead look for what constitutes good players, and then hope to find a way to correlate this back to games.

GOOD PLAYERS

Starting in Aristotelian ethics, Sicart [26] argues that it is possible to judge people as good *players* from an ethical perspective by the use of virtues. Players have a virtue if they maintain the mean state between lacking the virtue completely and attributing excessive importance to it. One, classical, example would be that of bravery where one lacking the virtue is a coward and one having too much bravery being a daredevil or suicidal. It should be stressed that Sicart's view is about how good people are as players, i.e. as agents interacting with or within a game, and not in relation to other activities or society in general. Through converting Bartle's four categories of player types [2] and incorporating notions of game balance and sport ethics, Sicart finds six virtues for players, namely:

- Sense of Achievement
- Explorative Curiosity
- Socializing Nature
- Balanced Aggression
- Care for Game Balance
- Sportsmanship

The first virtue, *Sense of Achievement*, is closely tied to the struggle towards goals stressed in several of the definitions of games mentioned above. To have this virtue, players should "compete fairly against the challenges of the game and against other players" [26, p. 95]. This should however be done with moderation since the ultimate goal should not be winning the game but "enjoying the game, alone or with others" [26, p. 95].

Explorative Curiosity has two aspects to it according to Sicart. The first, which can be seen as a prerequisite for the second, relates to the sheltering from consequences in games and the voluntary nature of the activities. Players should acknowledge this, "their belonging to that experience, their being as players, and the relatively safe nature of these environments" [26, p. 95]. By doing so they can be secure in "[e]xploring the game system and the possibilities of interaction" [26, p. 95].

Sicart describes the third virtue, *Socializing Nature*, as requiring players to "participate in a player community" [26, page 96] and "acknowledge that this community is a part of a game experience" [26, p. 96]. Support for this virtue is not so directly found in the definitions of games. Only one of them makes explicit reference to the social nature of games ("[promoting] the formation of social groupings" [13]) but many can be said to implicitly contain this since they describe interaction between players. One reason that some ([10,15,27]) do not mention it may be that they want to include single-player games. However, these games can also encourage social interaction since players can share experiences after the actual game event and discuss strategies and goals before. Sicart's stance supports this view, adding that players that have this virtue should recognize "that it is the game, or the shared event of being a player, that makes the community exist" [26, p. 96].

Support for the virtue of *Balanced Aggression* is easily found in the presence of confrontation but also in the safety in games. Speaking metaphorically, Sicart states that players "may have the right to attack and kill other players, but that gameplay should be balanced, regulated, properly rewarded, and be interesting from a gameplay perspective" [26, pp. 96-97].

The basis for the penultimate virtue, *Care for Game Balance*, is the observation that game balance, which firstly can be seen as a pure consequence of gameplay design, also relies on the players. The balance in most games can be disrupted by players ganging up or exploiting knowledge of other players' skills (or lack of skills) when

choosing what game to play, and how to play it. Therefore, Sicart makes it part of the virtue to not do so, stating that "players ought to preserve the game balance, thereby making it a fair game for all the parties involved" [26, pp. 96-97] but also "the preservation of a successful game experience for all players and agents involved in the game" [26, pp. 96-97].

Sicart adds the sixth virtue from research on the ethics in sports, seeing sports and games as operational synonyms. Borrowing directly from that field of research, he sees the virtue as "a mean between an excessive seriousness, which misunderstands the importance of the spirit of play, and an excessive sense of playfulness, which may be called frivolity and which misunderstand the importance of victory and achievement when play is competitive" (Quoted in [26, p. 98]).

Most of the virtues Sicart describes mention other players and how one should behave towards them. However, some also mention "agents" and "the game" as entities to relate to. Given this, and the fact that computers can in many cases take on the role of other players, in the following the virtues will be seen as applying to all entities that can interact within the system and are perceived as having goals. This is in line with the views of actor-network-theory [18], and similar views have been expressed in game research [28]. Using the terminology of Daniel Dennett, the relations described by the virtues should be maintained towards all entities to which a player takes an intentional stance [11].

A WORKING DEFINITION OF A GOOD GAME

Armed with this view of good players, we can now return to games and what can make one game good and another bad.

From a designer's perspective a game is an artifact created by that designer (and others). Taking a functional approach to design, one could then state that a game is a good artifact if it supports the intended functionality of that type of artifact well. This matches one of Monö's five views of useful things, that of an implement [21 , p. 17], and also the view in user-centered design on addressing the users' needs and desires [22]. For games, one can argue that the function is to support the activity of gaming [4], but this begs the question of what constitutes good gaming.

Since Sicart's use of Aristotelian ethics implies practical wisdom and relates to action [26, p. 100], his description of good players can be rephrased as describing how people should behave to play in a good manner (not being the same as playing well). Although gaming was introduced to differentiate between goal-based activities in games from other activities also supported by games, Sicart's use of the word playing matches this meaning and can thereby be seen as synonyms. Thus, Sicart's idea of good players can be seen as another way of describing good gaming, and thereby also the intended goal of gameplay design. In other words:

A good game is one that encourages
people to be good players.

Given this view of what constitutes good games, it becomes relevant to consider earlier connections between gameplay design and ethics. Consalvo, for instance observes that players judge games as good or bad depending on their entertainment value while politicians and interest groups judge them in relation to how they portray other phenomena [8]. Since the former of these opinions is based on taste, which is known to differ, and the latter relates to theme more than gameplay, they do not support the exploration of what makes games good from a gameplay perspective. Zagal introduces the concept of ethically notable games to discuss the possible relation between moral dilemmas and gameplay, classify games into the category if they "provide opportunities for encouraging ethical reasoning and reflection" [30]. By analyzing three games, he finds five ways to make games ethically notable: making players personally invested in gameplay decisions; requiring them to learn and follow ethical systems; testing their understanding of ethical systems by dilemmas; creating moral tension between gameplay reward structures and the diegetically presented character motivation; and creating moral tension between the players' goals on one hand and those presented by the gameplay and diegesis on the other hand. Although Zagal discusses ethics, he does so from the perspective of which ways games can pose moral dilemmas to players. Rather than looking at what makes a game good or bad he provides a design tool for raising ethical issues through gameplay.

Viewing good games as those that encourage people to be good players provides a goal for design but not the means of reaching that goal. Design tools are concepts, methods, and theories that can help designers reaching their goals, either by allowing the mapping and testing of possible alternatives, or by helping to provide intermittent goals. Several such design tools were mentioned in relation to definitions of games (i.e. [5,12,19,29]), but of these only gameplay design patterns describe gameplay concepts and offer the possibility of charting intermittent goals through series of related patterns[1]. Even if this makes patterns a useable design tool in this context, it does not explain how gameplay design patterns can be connected to Sicart's model of virtuous players, and what patterns are most relevant. Exploring this could however be done in a rather direct way: going through all patterns and noting which patterns relate to which player virtues, and then see what

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[1] The entities within the Game Ontology Project [29] only provides one type of relation, parent-child, and does not clearly differentiate between gameplay aspects and other aspects. The 400 project [12] has only the "negative" relation of rules trumping each other, and does not describe concrete design suggestions.

clusters or categories of patterns emerge. Gameplay design patterns are indicated in the paper through the use of small caps, e.g. REPLAYABILITY.

A VIRTUOUS PATTERN EXAMINATION

The initial collection of gameplay design patterns [5] consisted of slightly less than 300 patterns, and has since been expanded to over 500 from specific explorations of the design spaces of pervasive games [23], NPCs [16,17], Dialogues [6], and player Camaraderie [3]. The patterns in this expanded collection were first scanned for their initial relevance to the six virtues; for those related to a virtue it was noted if they either pulled towards the mean defined by that virtue or pulled towards an extreme. The goal of this scan was not to provide a complete mapping of the relations but to get a sense of the structure. After going through all the patterns in relation to the virtues some basic observations could be made.

First, many patterns could either pull towards the mean or an extreme depending on how strongly, or how often, it was present. For these cases the typical use as determined by the author's knowledge of games was chosen. For example, BLUFFING and ROLEPLAYING may be seen as portraying oneself as something one is not, but this in itself is a form of social activity which can be recognized by other players and therefore can be seen to promote the virtue of *Socializing Nature*. Second, some patterns that had been developed in the context of NPCs and AI Agents [16] were broadened to incorporate human players. This was justified by observing that the patterns worked for intentional agents in general, and the broadening mirrored the stance taken regarding the applicability of Sicart's virtues although beginning from another starting point. Third, many patterns related to several virtues. For example, the pattern RISK/REWARD was seen to be related to all virtues except *Socializing Nature*. Fourth, and related to the second, some patterns drew players towards the mean of one or more virtues while towards the extreme of one or more other. For example, INDIVIDUAL REWARDS was regarded as promoting *Sense of Achievement* while working against the virtue of *Care for Game Balance*.

A second pass through all patterns resulted in the identification of more relations between patterns and virtues and corrected some initial mistakes or oversights. To mitigate the risk that some patterns were missed due to subjectivity, a colleague familiar with the pattern collection made an external pass of the patterns that had not been marked with relations to ensure that this was not the case.

The third pass focused on those patterns that had relations with two or more virtues and were thus deemed more relevant for the subject at hand. Two colleagues provided external reviews of the examination that lead to some revisions, e.g. noting that COMPETITION can counter *Explorative Curiosity* and motivating the revision of DIFFICULTY SETTINGS to supporting *Sense of Achievements*

since it allows fair challenges against player current skills even if completing a game on a harder level than a easer one gives a greater achievement.

After these passes, 161 patterns were found to be related with 1 virtue, 131 with 2 virtues, and 50 with 3 virtues. ANALYSIS PARALYSIS, CHALLENGING GAMEPLAY, DYNAMIC ALLIANCES, EARLY ELIMINATION, GAME MASTERS, GRINDING, LATE ARRIVING PLAYERS, and PLAYER DECIDED RESULTS, all related to 4 virtues while RISK/REWARD related to all virtues but *Socializing Nature*. No patterns were found that had affect on all virtues. At first glance this may suggest that the patterns mentioned by name above are most relevant to the design of good games, but in some cases these patterns supported some virtues while pushing others towards extremes. To look at most pertinent patterns it is more appropriate to look at those that motivate player virtues without necessarily pushing them to any extreme. Looking at patterns which support 3 or more virtues without pushing towards any extremes gave 24 patterns, presented in figure 1.

Patterns	# virtues
RISK/REWARD	5
DYNAMIC ALLIANCES	4
GAME MASTERS	4
PLAYER DECIDED RESULTS	4
AVATAR PERSONALIZATION	3
BIDDING	3
BLUFFING	3
DIFFICULTY SETTINGS	3
GAIN INFORMATION	3
GAIN OWNERSHIP	3
INTERRUPTABILITY	3
OPTIONAL RULES	3
PAPER-ROCK-SCISSORS	3
PLAYER DECIDED RULE SETUP	3
SELECTABLE FUNCTIONAL ROLES	3
SELECTABLE SET OF GOALS	3
SELECTABLE SOCIAL ROLES	3
SOCIAL DILEMMAS	3
SOCIAL INTERACTION	3
TEAM ACCOMPLISHMENTS	3
TEAM COMBOS	3
TEAM STRATEGY IDENTIFICATION	3
TRADING	3
VOTING	3

Figure 1. Patterns supporting most virtues.

In contrast, figure 2 shows the 7 patterns that that push towards the extreme of 3 or more virtues without supporting any other.

Looking at the patterns found in this fashion some observations could be made on their similarities regarding specific subjects within gameplay or on their relations to the virtues. The following describes four such observations.

Observation: The Social Nature of Games
One striking factor of the examination was that of the patterns which promoted most virtues, only 7 of the 24 found did not support *Socializing Nature*: DIFFICULTY SETTINGS, GAIN INFORMATION, GAIN OWNERSHIP, PAPER-ROCK-SCISSORS, PLAYER DECIDED RESULTS, SELECTABLE SET OF GOALS, and RISK/REWARD. This made it the virtue most patterns related to; the second-most related virtue was *Sense of Achievement* that related to all but 9 patterns. That one should consider the social nature of games when designing them may seem like common sense but is here validated by the pattern collection, which was developed independently of the player virtues model and with a focus on games as systems and on considering computers to be possible players of games [5, p. 25]. One reason for this may simply be that human interaction is complex in itself, and includes conflicts and goals, which makes it suitable to build gameplay on.

Some of these patterns arise quite simply from other patterns in multiplayer games, e.g. TEAM ACCOMPLISHMENTS and TEAM COMBOS which are team versions of ACCOMPLISHMENTS and COMBOS respectively, and thereby "gain" a relation in comparison to these other patterns. Others, however, add flexibility and thereby require interaction where there earlier was no need. For example, ALLIANCES can be predetermined and need no considerations for long periods of gameplay time while DYNAMIC ALLIANCES need to be established and maintained (thereby supporting *Sense of Achievement*), and can be used to *Care for Game Balance* by ganging up on runaway leaders. Similarly, SELECTABLE FUNCTIONAL ROLES may lead to competition over desirable roles or need coordination to identify the needed roles in a given situation, something not possible in game with fixed ASYMMETRICAL ROLES.

Observation: Meaningful Play
Player influence and the importance of meaningful choices have been stressed in many descriptions of what forms a game. Interestingly, with the exception of RISK/REWARD and those patterns that have choices in relation to social interaction (e.g. BIDDING, TRADING, PLAYER DECIDED RESULTS, and VOTING) this is not clearly mirrored in the patterns found. Further, the two patterns most closely related to this, EXAGGERATED PERCEPTION OF INFLUENCE and FREEDOM OF CHOICE, only related to 2 virtues each. Instead, 5 out of the 7 "negative" patterns, and all of the 3

Patterns	# virtues
ANALYSIS PARALYSIS	4
EARLY ELIMINATION	4
GRINDING	4
EITHER YOU ARE WITH ME OR AGAINST ME	3
EXCLUDING GROUPS	3
EXCISE	3
KING MAKER	3

Figure 2. Patterns pushing towards virtue extremes.

to have 4 virtue relations, relate to players' inability to act or their choices not being meaningful.

Besides RISK/REWARD, meaningful play is more strongly represented through negative patterns echoes the reasoning regarding definitions earlier in the paper. One can judge games as bad due to them lacking features, but that which makes them good is more difficult to express, at least regarding the specific activities they should contain.

Observation: Player Control over Gameplay
Another discernable group of patterns relates to how players can affect the gameplay of the game – not in the sense of players being able to do meaningful choices, but rather in the sense of players being able to control the gameplay activity from outside the game. DIFFICULTY SETTINGS and PLAYER DECIDED RULE SETUP both provide players with ways of more precisely calibrating their gameplay experience before the games begins. SELECTABLE FUNCTIONAL ROLES lets players choose which type of gameplay they wish to have within a set of possible choices while SELECTABLE SOCIAL ROLES gives players the possibility to control how they wish to interact with other players. INTERRUPTABILITY makes it possible to stop the gameplay activity to do other activities and then resume the game when it is suitable. GAME MASTERS provides versatility, allowing changes in DIFFICULTY SETTINGS and PLAYER DECIDED RULE SETUP during game sessions and being able to create roles as needed and handle INTERRUPTABILITY on a case by case basis.

These patterns stress, from the gameplay perspective, the importance of acknowledging that gaming is a voluntary activity. As such players want to be in control of the factors that define the activity as well as when to participate. This is also argued by the presence of EARLY ELIMINATION as one of the patterns working against most virtues.

Observation: Two special cases
The patterns CHALLENGING GAMEPLAY and LATE ARRIVING PLAYERS both had 4 relations to Sicart's virtues but supported some virtues while countered others. Since they promoted 2 and 3 virtues respectively they are arguably still interesting to consider in games but may require a better knowledge of the intended audience than

the other patterns discussed so far. While CHALLENGING GAMEPLAY may fit people wanting to feel the pleasure of succeeding in something difficult and not wishing to socialize, LATE ARRIVING PLAYERS may instead be appropriate for people wishing to casually hang out and willing to adjust the gameplay as players turn up. On a side note, the two patterns have no overlap in how they relate to the virtues, and contradict each other for *Socializing Nature*, *Sense of Achievement*, and *Sportsmanship*. This may be an indication that they may suit different group of players generally.

DISCUSSION

The exploration of how to make good games in this paper can of course be criticized for having too narrow a view of what is important in the design of a game. Monö lists five possible views on useful things [21 , p. 17], and this paper has only looked at one, that of a game as an implement for supporting gaming. The others, ornament, collector's item, merchandise, and product, are also possible aspects. Narration as well as the aesthetics of graphics and sounds in a game can be added to this list (perhaps fitting within the view of a game as an ornament). However, these areas have been studied in other disciplines already and the design knowledge from these can simply be added to those argued for in this paper (although consensus might not exist within any these disciplines; so, a choice of what school of thought one wishes to work within may be necessary).

From another perspective, Sicart's virtues are not only related to gameplay. For example, *Socializing Nature*, can be achieved through gameplay but social interaction can maybe even more likely occur outside the gameplay, and the virtue also includes belonging to a culture more generally. Looking purely at gameplay for truly single-player games, i.e. games where no gameplay is relevant to any other agent, one could disregard the virtue when identifying patterns. After also removing patterns which logically need several players (i.e. DYNAMIC ALLIANCES and GAME MASTERS), this leaves only 10 patterns out of the 24 identified previously, as shown in figures 3 and 4. All of these have 3 relations except for RISK/REWARDS supports all virtues in this context.

The use of intentional agents could be seen as making the

Patterns
DIFFICULTY SETTINGS
GAIN INFORMATION
GAIN OWNERSHIP
PAPER-ROCK-SCISSORS
PLAYER DECIDED RESULTS
RISK/REWARD
SELECTABLE SET OF GOALS

Figure 3. Patterns supporting most virtues in "true" single-player games.

virtues volatile since this use depends on people did perceiving NPCs or AI players as other players. This claim

Patterns
ANALYSIS PARALYSIS
EARLY ELIMINATION
GRINDING

Figure 4. Patterns pushing towards most virtue extremes in "true" single-player games.

may be true, and in one sense points to the difficulty of creating emotional immersion in interactive narratives. However, the same problem exists for online games. Since it may be difficult or uninteresting for people to perceive anything else about other people in the game besides their gameplay actions, these may be perceived and treated as NPCs or AI players. Given this, using the concept of intentional agents rather than humans may be more suitable in general, and also remind game designers of the fragility of social conventions in online games.

The identification of patterns central to many virtues points to a starting point for accessing the pattern collection. Since these patterns are most closely related to what arguably makes a game good they are the most interesting to study first, with other patterns becoming relevant based on their relation to these or specific design choices related to theme or genre. In doing so, the result of examining the patterns relations to Sicart's virtues can provide a solution to the problem that becoming familiar with the network of patterns in the collection can be daunting due to the sheer number of patterns.

Sicart's list of player virtues is not necessarily exhaustive. *Care of Game Balance* and *Sportsmanship* were both added after going through Bartle's player types with the motivation "[y]et these are not enough, and there surely must be more of them" [26, p. 97] but without giving any end criteria for searching. This does not affect the applicability of using gameplay design patterns to support the design of games. Adding additional virtues would maybe highlight other patterns but these would likewise be able to support design considerations. For those designers that do not agree with the importance of any one of Sicart's virtues, removing that virtue is also possible. As the example of removing *Socializing Nature* showed, the relevant patterns change but the approach is not otherwise affected. In fact, as long as one can explicitly create a framework of player virtues the gameplay design pattern collection can be applied to them in the way done in this paper. One conclusion of this is that the approach can be applied to more narrow views on what characterizes good players to point out which gameplay design patterns are most relevant. For example, gameplay aesthetic ideals, which allow people to "attribute aesthetical value to gameplay design and […] distinguish their own preferences

from inherent qualities of a game artifact" [20], can be used as basis for describing player virtues and thereby support game designers in making games for target audiences they themselves do not belong to.

CONCLUSIONS

This paper has explored how player virtue ethics can be used to filter the gameplay design collection to identify patterns that aid in designing games that support those ethics. By doing so, the paper shows one set of patterns important when wishing to create a game with a certain view of what constitutes a good game. Even if one does not agree with the virtues, the examination method used shows a way of grading the pattern collection that can be applied from another value basis, including more specific ones denoting for example genres.

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